

1401

Gln Glu Phe Gly Pro Ile Ser Tyr Val Val Val Met Pro Lys Lys Arg  
 115 120 125

Gln Ala Leu Val Glu Phe Glu Asp Val Leu Gly Ala Cys Asn Ala Val  
 130 135 140

Asn Tyr Ala Ala Asp Asn Gln Ile Tyr Ile Ala Gly His Pro Ala Phe  
 145 150 155 160

Val Asn Tyr Ser Thr Ser Gln Lys Ile Ser Arg Pro Gly Asp Ser Asp  
 165 170 175

Asp Ser Arg Ser Val Asn Ser Val Leu Leu Phe Thr Ile Leu Asn Pro  
 180 185 190

Ile Tyr Ser Ile Thr Thr Asp Val Leu Tyr Thr Ile Cys Asn Pro Cys  
 195 200 205

Gly Pro Val Gln Arg Ile Val Ile Phe Arg Lys Asn Gly Val Gln Ala  
 210 215 220

Met Val Glu Phe Asp Ser Val Gln Ser Ala Gln Arg Ala Lys Ala Ser  
 225 230 235 240

Leu Asn Gly Ala Asp Ile Tyr Ser Gly Cys Cys Thr Leu Lys Ile Glu  
 245 250 255

Tyr Ala Lys Pro Thr Arg Leu Asn Val Phe Lys Asn Asp Gln Asp Thr  
 260 265 270

Trp Asp Tyr Thr Asn Pro Asn Leu Ser Gly Gln Gly Asn Leu Asp Asp  
 275 280 285

His Phe Val Leu Asn Ile Pro Ala Leu Leu Ser Leu Asp  
 290 295 300

<210> 1355

<211> 466

<212> PRT

<213> Homo sapiens

<400> 1355

Asn Thr Val Met Gly Arg Lys Lys Lys Lys Gln Leu Lys Pro Trp Cys  
 1 5 10 15

Trp Tyr Cys Asn Arg Asp Phe Asp Asp Glu Lys Ile Leu Ile Gln His  
 20 25 30

1402

Gln Lys Ala Lys His Phe Lys Cys His Ile Cys His Lys Lys Leu Tyr  
 35 40 45  
 Thr Gly Pro Gly Leu Ala Ile His Cys Met Gln Val His Lys Glu Thr  
 50 55 60  
 Ile Asp Ala Val Pro Asn Ala Ile Pro Gly Arg Thr Asp Ile Glu Leu  
 65 70 75 80  
 Glu Ile Tyr Gly Met Glu Gly Ile Pro Glu Lys Asp Met Asp Glu Arg  
 85 90 95  
 Arg Arg Leu Leu Glu Gln Lys Thr Gln Glu Ser Gln Lys Lys Lys Gln  
 100 105 110  
 Gln Asp Asp Ser Asp Glu Tyr Asp Asp Asp Asp Ser Ala Ala Ser Thr  
 115 120 125  
 Ser Phe Gln Pro Gln Pro Val Gln Pro Gln Gln Gly Tyr Ile Pro Pro  
 130 135 140  
 Met Ala Gln Pro Gly Leu Pro Pro Val Pro Gly Ala Pro Gly Met Pro  
 145 150 155 160  
 Pro Gly Ile Pro Pro Leu Met Pro Gly Val Pro Pro Leu Met Pro Gly  
 165 170 175  
 Met Pro Pro Val Met Pro Gly Met Pro Pro Gly Leu His His Gln Arg  
 180 185 190  
 Lys Tyr Thr Gln Ser Phe Cys Gly Glu Asn Ile Met Met Pro Met Gly  
 195 200 205  
 Gly Met Met Pro Pro Gly Pro Gly Ile Pro Pro Leu Met Pro Gly Met  
 210 215 220  
 Pro Pro Gly Met Pro Pro Pro Val Pro Arg Pro Gly Ile Pro Pro Met  
 225 230 235 240  
 Thr Gln Ala Gln Ala Val Ser Ala Pro Gly Ile Leu Asn Arg Pro Pro  
 245 250 255  
 Ala Pro Thr Ala Thr Val Pro Ala Pro Gln Pro Pro Val Thr Lys Pro  
 260 265 270  
 Leu Phe Pro Ser Ala Gly Gln Ala Gln Ala Ala Val Gln Gly Pro Val  
 275 280 285  
 Gly Thr Asp Phe Lys Pro Leu Asn Ser Thr Pro Ala Thr Thr Thr Glu  
 290 295 300

1403

Pro Pro Lys Pro Thr Phe Pro Ala Tyr Thr Gln Ser Thr Ala Ser Thr  
305 310 315 320

Thr Ser Thr Thr Asn Ser Thr Ala Ala Lys Pro Ala Ala Ser Ile Thr  
325 330 335

Ser Lys Pro Ala Thr Leu Thr Thr Thr Ser Ala Thr Ser Lys Leu Ile  
340 345 350

His Pro Asp Glu Asp Ile Ser Leu Glu Glu Arg Arg Ala Gln Leu Pro  
355 360 365

Lys Tyr Gln Arg Asn Leu Pro Arg Pro Gly Gln Ala Pro Ile Gly Asn  
370 375 380

Pro Pro Val Gly Pro Ile Gly Gly Met Met Pro Pro Gln Pro Gly Ile  
385 390 395 400

Pro Gln Gln Gln Gly Met Arg Pro Pro Met Pro Pro His Gly Gln Tyr  
405 410 415

Gly Gly His His Gln Gly Met Pro Gly Tyr Leu Pro Gly Ala Met Pro  
420 425 430

Pro Tyr Gly Gln Gly Pro Pro Met Val Pro Pro Tyr Gln Gly Gly Pro  
435 440 445

Pro Arg Pro Pro Met Gly Met Arg Pro Pro Val Met Ser Gln Gly Gly  
450 455 460

Arg Tyr  
465

<210> 1356

<211> 85

<212> PRT

<213> Homo sapiens

<400> 1356

Leu Ser Asp Asp Gln Ser Leu Leu Ile Ile Leu Leu Leu Lys Gly Leu  
1 5 10 15

Leu Thr Asn Leu Ser Phe Thr Pro Cys Gly Pro Cys Tyr Trp Tyr Thr  
20 25 30

Gln Tyr Val Leu Thr Glu Asp Met Asp Phe Ile Cys Ser Ser Ala Gly  
35 40 45

Ile Gly Lys Leu Asp Leu Phe Ser Met Ile Gln Asn Ser Pro Ile Arg

1404

50                      55                      60  
 Arg Leu Glu Lys Glu Glu Leu Tyr Ser Ser Leu Cys Tyr Phe Leu Leu  
 65                      70                      75                      80  
 Pro Phe Leu Phe Leu  
 85

&lt;210&gt; 1357

&lt;211&gt; 580

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (526)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1357

Asp Ser Xaa Thr Phe Asp Asp Leu Ala Val Asp Phe Thr Pro Glu Glu  
 1                      5                      10                      15

Trp Thr Leu Leu Asp Pro Thr Gln Arg Asn Leu Tyr Arg Asp Val Met  
 20                      25                      30

Leu Glu Asn Tyr Lys Asn Leu Ala Thr Val Gly Tyr Gln Leu Phe Lys  
 35                      40                      45

Pro Ser Leu Ile Ser Trp Leu Glu Gln Glu Glu Ser Arg Thr Val Gln  
 50                      55                      60

Arg Gly Asp Phe Gln Ala Ser Glu Trp Lys Val Gln Leu Lys Thr Lys  
 65                      70                      75                      80

Glu Leu Ala Leu Gln Gln Asp Val Leu Gly Glu Pro Thr Ser Ser Gly  
 85                      90                      95

Ile Gln Met Ile Gly Ser His Asn Gly Gly Glu Val Ser Asp Val Lys  
 100                      105                      110

Gln Cys Gly Asp Val Ser Ser Glu His Ser Cys Leu Lys Thr His Val  
 115                      120                      125

Arg Thr Gln Asn Ser Glu Asn Thr Phe Glu Cys Tyr Leu Tyr Gly Val

1405

130	135	140
Asp Phe Leu Thr Leu His Lys Lys Thr Ser Thr Gly Glu Gln Arg Ser		
145	150	155 160
Val Phe Ser Gln Cys Gly Lys Ala Phe Ser Leu Asn Pro Asp Val Val		
	165	170 175
Cys Gln Arg Thr Cys Thr Gly Glu Lys Ala Phe Asp Cys Ser Asp Ser		
	180	185 190
Gly Lys Ser Phe Ile Asn His Ser His Leu Gln Gly His Leu Arg Thr		
	195	200 205
His Asn Gly Glu Ser Leu His Glu Trp Lys Glu Cys Gly Arg Gly Phe		
	210	215 220
Ile His Ser Thr Asp Leu Ala Val Arg Ile Gln Thr His Arg Ser Glu		
	225	230 235 240
Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Gly Phe Arg Tyr Ser Ala		
	245	250 255
Tyr Leu Asn Ile His Met Gly Thr His Thr Gly Asp Asn Pro Tyr Glu		
	260	265 270
Cys Lys Glu Cys Gly Lys Ala Phe Thr Arg Ser Cys Gln Leu Thr Gln		
	275	280 285
His Arg Lys Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Lys Asp Cys		
	290	295 300
Gly Arg Ala Phe Thr Val Ser Ser Cys Leu Ser Gln His Met Lys Ile		
	305	310 315 320
His Val Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Ile Ala Phe		
	325	330 335
Thr Arg Ser Ser Gln Leu Thr Glu His Leu Lys Thr His Thr Ala Lys		
	340	345 350
Asp Pro Phe Glu Cys Lys Ile Cys Gly Lys Ser Phe Arg Asn Ser Ser		
	355	360 365
Cys Leu Ser Asp His Phe Arg Ile His Thr Gly Ile Lys Pro Tyr Lys		
	370	375 380
Cys Lys Asp Cys Gly Lys Ala Phe Thr Gln Asn Ser Asp Leu Thr Lys		
	385	390 395 400
His Ala Arg Thr His Ser Gly Glu Arg Pro Tyr Glu Cys Lys Glu Cys		

1406

405	410	415
Gly Lys Ala Phe Ala Arg Ser Ser Arg Leu Ser Glu His Thr Arg Thr		
420	425	430
His Thr Gly Glu Lys Pro Phe Glu Cys Val Lys Cys Gly Lys Ala Phe		
435	440	445
Ala Ile Ser Ser Asn Leu Ser Gly His Leu Arg Ile His Thr Gly Glu		
450	455	460
Lys Pro Phe Glu Cys Leu Glu Cys Gly Lys Ala Phe Thr His Ser Ser		
465	470	480
Ser Leu Asn Asn His Met Arg Thr His Ser Ala Lys Lys Pro Phe Thr		
485	490	495
Cys Met Glu Cys Gly Lys Ala Phe Lys Phe Pro Thr Cys Val Asn Leu		
500	505	510
His Met Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Xaa Gln Cys		
515	520	525
Gly Lys Ser Phe Ser Tyr Ser Asn Ser Phe Gln Leu His Glu Arg Thr		
530	535	540
His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe		
545	550	555
Ser Ser Ser Ser Ser Phe Arg Asn His Glu Arg Arg His Ala Asp Glu		
565	570	575
Arg Leu Ser Ala		
580		

&lt;210&gt; 1358

&lt;211&gt; 612

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (134)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (445)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1407

&lt;400&gt; 1358

Glu Val Pro Glu Ala His Arg Ala Ser Pro Arg Glu Gly Thr Ser Gly  
 1 5 10 15

Gly Glu Arg Leu Gln Asp Leu Val Lys Ser Lys Met Ser Glu Thr Ser  
 20 25 30

Arg Thr Ala Phe Gly Gly Arg Arg Ala Val Pro Pro Asn Asn Ser Asn  
 35 40 45

Ala Ala Glu Asp Asp Leu Pro Thr Val Glu Leu Gln Gly Val Val Pro  
 50 55 60

Arg Gly Val Asn Leu Gln Asp Asp Ala Val Tyr Leu Asp Asn Glu Lys  
 65 70 75 80

Glu Arg Glu Glu Tyr Val Leu Asn Asp Ile Gly Val Ile Phe Tyr Gly  
 85 90 95

Glu Val Asn Asp Ile Lys Thr Arg Ser Trp Ser Tyr Gly Gln Phe Glu  
 100 105 110

Asp Gly Ile Leu Asp Thr Cys Leu Tyr Val Met Asp Arg Ala Gln Met  
 115 120 125

Asp Leu Ser Gly Arg Xaa Asn Pro Ile Lys Val Ser Arg Val Gly Ser  
 130 135 140

Ala Met Val Asn Ala Lys Asp Asp Glu Gly Val Leu Val Gly Ser Trp  
 145 150 155 160

Asp Asn Ile Tyr Ala Tyr Gly Val Pro Pro Ser Ala Trp Thr Gly Ser  
 165 170 175

Val Asp Ile Leu Leu Glu Tyr Arg Ser Ser Glu Asn Pro Val Arg Tyr  
 180 185 190

Gly Gln Cys Trp Val Phe Ala Gly Val Phe Asn Thr Phe Leu Arg Cys  
 195 200 205

Leu Gly Ile Pro Ala Arg Ile Val Thr Asn Tyr Phe Ser Ala His Asp  
 210 215 220

Asn Asp Ala Asn Leu Gln Met Asp Ile Phe Leu Glu Glu Asp Gly Asn  
 225 230 235 240

Val Asn Ser Lys Leu Thr Lys Asp Ser Val Trp Asn Tyr His Cys Trp  
 245 250 255

Asn Glu Ala Trp Met Thr Arg Pro Asp Leu Pro Val Gly Phe Gly Gly

1408

260	265	270
Trp Gln Ala Val Asp Ser Thr	Pro Gln Glu Asn Ser Asp Gly Met Tyr	
275	280	285
Arg Cys Gly Pro Ala Ser Val	Gln Ala Ile Lys His Gly His Val Cys	
290	295	300
Phe Gln Phe Asp Ala Pro Phe Val	Phe Ala Glu Val Asn Ser Asp Leu	
305	310	315
Ile Tyr Ile Thr Ala Lys Lys Asp	Gly Thr His Val Val Glu Asn Val	
325	330	335
Asp Ala Thr His Ile Gly Lys Leu	Ile Val Thr Lys Gln Ile Gly Gly	
340	345	350
Asp Gly Met Met Asp Ile Thr	Asp Thr Tyr Lys Phe Gln Glu Gly Gln	
355	360	365
Glu Glu Glu Arg Leu Ala Leu	Glu Thr Ala Leu Met Tyr Gly Ala Lys	
370	375	380
Lys Pro Leu Asn Thr Glu Gly Val	Met Lys Ser Arg Ser Asn Val Asp	
385	390	395
Met Asp Phe Glu Val Glu Asn Ala	Val Leu Gly Lys Asp Phe Lys Leu	
405	410	415
Ser Ile Thr Phe Arg Asn Asn Ser	His Asn Arg Tyr Thr Ile Thr Ala	
420	425	430
Tyr Leu Ser Ala Asn Ile Thr	Phe Tyr Thr Gly Val Xaa Lys Ala Glu	
435	440	445
Phe Lys Lys Glu Thr Phe Asp Val	Thr Leu Glu Pro Leu Ser Phe Lys	
450	455	460
Lys Glu Ala Val Leu Ile Gln Ala	Gly Glu Tyr Met Gly Gln Leu Leu	
465	470	475
Glu Gln Ala Ser Leu His Phe Phe	Val Thr Ala Arg Ile Asn Glu Thr	
485	490	495
Arg Asp Val Leu Ala Lys Gln Lys	Ser Thr Val Leu Thr Ile Pro Glu	
500	505	510
Ile Ile Ile Lys Val Arg Gly Thr	Gln Val Val Gly Ser Asp Met Thr	
515	520	525
Val Thr Val Glu Phe Thr Asn Pro	Leu Lys Glu Thr Leu Arg Asn Val	



1409

530                      535                      540  
 Trp Val His Leu Asp Gly Pro Gly Val Thr Arg Pro Met Lys Lys Met  
 545                      550                      555                      560  
 Phe Arg Glu Ile Arg Pro Asn Ser Thr Val Gln Trp Glu Glu Val Cys  
                     565                      570                      575  
 Arg Pro Trp Val Ser Gly His Arg Lys Leu Ile Ala Ser Met Ser Ser  
                     580                      585                      590  
 Asp Ser Leu Arg His Val Tyr Gly Glu Leu Asp Val Gln Ile Gln Arg  
                     595                      600                      605  
 Arg Pro Ser Met  
 610

&lt;210&gt; 1359

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1359

Leu Ser Cys Ile Val Leu Leu Arg Gln Ser Ser Val Lys Leu Tyr Gln  
 1                      5                      10                      15

Leu Arg Leu Val Ser Ser Asp Phe His Trp Gly Ile Arg Val Leu Ala  
                     20                      25                      30

Gly Leu Asn Leu Leu Leu Val Gly Ser Val Phe Leu Met Asn Lys Ser  
                     35                      40                      45

His Ser Thr Glu Leu Gln Val Ile  
                     50                      55

&lt;210&gt; 1360

&lt;211&gt; 415

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (368)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

<222> (374)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (379)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (381)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (384)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (385)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (386)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (389)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (397)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (404)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (405)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (409)

1411

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1360

Gly Gly Gly Gly Glu Lys Met Ala Asp Asp Pro Ser Ala Ala Asp Arg  
 1 5 10 15

Asn Val Glu Ile Trp Lys Ile Lys Lys Leu Ile Lys Ser Leu Glu Ala  
 20 25 30

Ala Arg Gly Asn Gly Thr Ser Met Ile Ser Leu Ile Ile Pro Pro Lys  
 35 40 45

Asp Gln Ile Ser Arg Val Ala Lys Met Leu Ala Asp Glu Phe Gly Thr  
 50 55 60

Ala Ser Asn Ile Lys Ser Arg Val Asn Arg Leu Ser Val Leu Gly Ala  
 65 70 75 80

Ile Thr Ser Val Gln Gln Arg Leu Lys Leu Tyr Asn Lys Val Pro Pro  
 85 90 95

Asn Gly Leu Val Val Tyr Cys Gly Thr Ile Val Thr Glu Glu Gly Lys  
 100 105 110

Glu Lys Lys Val Asn Ile Asp Phe Glu Pro Phe Lys Pro Ile Asn Thr  
 115 120 125

Ser Leu Tyr Leu Cys Asp Asn Lys Phe His Thr Glu Ala Leu Thr Ala  
 130 135 140

Leu Leu Ser Asp Asp Ser Lys Phe Gly Phe Ile Val Ile Asp Gly Ser  
 145 150 155 160

Gly Ala Leu Phe Gly Thr Leu Gln Gly Asn Thr Arg Glu Val Leu His  
 165 170 175

Lys Phe Thr Val Asp Leu Pro Lys Lys His Gly Arg Gly Gly Gln Ser  
 180 185 190

Ala Leu Arg Phe Ala Arg Leu Arg Met Glu Lys Arg His Asn Tyr Val  
 195 200 205

Arg Lys Val Ala Glu Thr Ala Val Gln Leu Phe Ile Ser Gly Asp Lys  
 210 215 220

Val Asn Val Ala Gly Leu Val Leu Ala Gly Ser Ala Asp Phe Lys Thr  
 225 230 235 240

Glu Leu Ser Gln Ser Asp Met Phe Asp Gln Arg Leu Gln Ser Lys Val  
 245 250 255

1412

Leu Lys Leu Val Asp Ile Ser Tyr Gly Gly Glu Asn Gly Phe Asn Gln  
                   260                  265                  270  
 Ala Ile Glu Leu Ser Thr Glu Val Leu Ser Asn Val Lys Phe Ile Gln  
                   275                  280                  285  
 Glu Lys Lys Leu Ile Gly Arg Tyr Phe Asp Glu Ile Ser Gln Asp Thr  
                   290                  295                  300  
 Gly Lys Tyr Cys Phe Gly Val Glu Asp Thr Leu Lys Ala Leu Glu Met  
 305                                  310                  315                  320  
 Gly Ala Val Glu Ile Leu Ile Val Tyr Glu Asn Leu Asp Ile Met Arg  
                                   325                  330                  335  
 Tyr Val Leu His Cys Gln Gly Thr Glu Glu Glu Lys Ile Leu Tyr Leu  
                   340                  345                  350  
 Thr Pro Glu Gln Glu Lys Asp Lys Ser His Phe Thr Asp Lys Glu Xaa  
                   355                  360                  365  
 Arg Thr Gly Thr Met Xaa Leu Ser Arg Ala Xaa Pro Xaa Leu Glu Xaa  
                   370                  375                  380  
 Xaa Xaa Asn Asn Xaa Lys Lys Leu Gly Leu Pro Trp Xaa Ile Gly Pro  
 385                                  390                  395                  400  
 Ile Asn Ser Xaa Xaa Arg Gly Gln Xaa Trp Lys Arg Ile Gly Gly  
                                   405                  410                  415

&lt;210&gt; 1361

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1361

His Ala Ser Ala Asp Ala Trp Ala Asp Ala Trp Val Ala Gly Ser Asp  
   1                  5                  10                  15  
 Phe Ile Lys Thr Ser Thr Gly Lys Glu Thr Val Asn Ala Thr Phe Pro  
                   20                  25                  30  
 Val Ala Ile Val Met Leu Arg Ala Ile Arg Asp Phe Phe Trp Lys Thr  
                   35                  40                  45  
 Gly Asn Lys Ile Gly Phe Lys Pro Ala Gly Gly Ile Arg Ser Ala Lys  
                   50                  55                  60  
 Asp Ser Leu Ala Trp Leu Ser Leu Val Lys Glu Glu Leu Gly Asp Glu

1413

65                      70                      75                      80  
 Trp Leu Lys Pro Glu Leu Phe Arg Ile Gly Ala Ser Thr Leu Leu Ser  
                             85                      90                      95  
 Asp Ile Glu Arg Gln Ile Tyr His His Val Thr Gly Arg Tyr Ala Ala  
                             100                      105                      110  
 Tyr His Asp Leu Pro Met Ser  
                             115

&lt;210&gt; 1362

&lt;211&gt; 282

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1362

Gly Arg Val Gly Gly Arg Val Gly Gly Arg Val Gly Phe Thr Ala Lys  
   1                            5                            10                            15

Val Trp Asp Ala Val Ser Gly Asp Glu Leu Met Thr Leu Ala His Lys  
                             20                            25                            30

His Xaa Xaa Lys Thr Val Asp Phe Thr Gln Asp Ser Asn Tyr Leu Leu  
                             35                            40                            45

Thr Gly Gly Gln Asp Lys Leu Leu Arg Ile Tyr Asp Leu Asn Lys Pro  
                             50                            55                            60

Glu Ala Glu Pro Lys Glu Ile Ser Gly His Thr Ser Gly Ile Lys Lys  
   65                            70                            75                            80

Ala Leu Trp Cys Ser Glu Asp Lys Gln Ile Leu Ser Ala Asp Asp Lys  
                             85                            90                            95

Thr Val Arg Leu Trp Asp His Ala Thr Met Thr Glu Val Lys Ser Leu  
                             100                            105                            110

Asn Phe Asn Met Ser Val Ser Ser Met Glu Tyr Ile Pro Glu Gly Glu

1414

115	120	125
Ile Leu Val Ile Thr Tyr Gly Arg Ser Ile Ala Phe His Ser Ala Val		
130	135	140
Ser Leu Asp Pro Ile Lys Ser Phe Glu Ala Pro Ala Thr Ile Asn Ser		
145	150	155 160
Ala Ser Leu His Pro Glu Lys Glu Phe Leu Val Ala Gly Gly Glu Asp		
	165	170 175
Phe Lys Leu Tyr Lys Tyr Asp Tyr Asn Ser Gly Glu Glu Leu Glu Ser		
	180	185 190
Tyr Lys Gly His Phe Gly Pro Ile His Cys Val Arg Phe Ser Pro Asp		
	195	200 205
Gly Glu Leu Tyr Ala Ser Gly Ser Glu Asp Gly Thr Leu Arg Leu Trp		
	210	215 220
Gln Thr Val Val Gly Lys Thr Tyr Gly Leu Trp Lys Cys Val Leu Pro		
	225	230 235 240
Glu Glu Asp Ser Gly Glu Leu Ala Lys Pro Lys Ile Gly Phe Pro Glu		
	245	250 255
Thr Thr Glu Glu Glu Leu Glu Glu Ile Ala Ser Glu Asn Ser Asp Cys		
	260	265 270
Ile Phe Pro Ser Ala Pro Asp Val Lys Ala		
	275	280

&lt;210&gt; 1363

&lt;211&gt; 334

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1363

Thr Pro Arg Thr Pro Glu Pro His Lys Pro Gly Leu Ala Met Lys Pro		
1	5	10 15
Gly Phe Ser Pro Arg Gly Gly Gly Phe Gly Gly Arg Gly Gly Phe Gly		
	20	25 30
Asp Arg Gly Gly Arg Gly Gly Arg Gly Gly Phe Gly Gly Gly Arg Gly		
	35	40 45
Arg Gly Gly Gly Phe Arg Gly Arg Gly Arg Gly Gly Gly Gly Gly		
	50	55 60

1415

Gly Gly Gly Gly Gly Gly Gly Gly Arg Gly Gly Gly Gly Phe His Ser Gly  
 65 70 75 80

Gly Asn Arg Gly Arg Gly Arg Gly Gly Lys Arg Gly Asn Gln Ser Gly  
 85 90 95

Lys Asn Val Met Val Glu Pro His Arg His Glu Gly Val Phe Ile Cys  
 100 105 110

Arg Gly Lys Glu Asp Ala Leu Val Thr Lys Asn Leu Val Pro Gly Glu  
 115 120 125

Ser Val Tyr Gly Glu Lys Arg Val Ser Ile Ser Glu Gly Asp Asp Lys  
 130 135 140

Ile Glu Tyr Arg Ala Trp Asn Pro Phe Arg Ser Lys Leu Ala Ala Ala  
 145 150 155 160

Ile Leu Gly Gly Val Asp Gln Ile His Ile Lys Pro Gly Ala Lys Val  
 165 170 175

Leu Tyr Leu Gly Ala Ala Ser Gly Thr Thr Val Ser His Val Ser Asp  
 180 185 190

Ile Val Gly Pro Asp Gly Leu Val Tyr Ala Val Glu Phe Ser His Arg  
 195 200 205

Ser Gly Arg Asp Leu Ile Asn Leu Ala Lys Lys Arg Thr Asn Ile Ile  
 210 215 220

Pro Val Ile Glu Asp Ala Arg His Pro His Lys Tyr Arg Met Leu Ile  
 225 230 235 240

Ala Met Val Asp Val Ile Phe Ala Asp Val Ala Gln Pro Asp Gln Thr  
 245 250 255

Arg Ile Val Ala Leu Asn Ala His Thr Phe Leu Arg Asn Gly Gly His  
 260 265 270

Phe Val Ile Ser Ile Lys Ala Asn Cys Ile Asp Ser Thr Ala Ser Ala  
 275 280 285

Glu Ala Val Phe Ala Ser Glu Val Lys Lys Met Gln Gln Glu Asn Met  
 290 295 300

Lys Pro Gln Glu Gln Leu Thr Leu Glu Pro Tyr Glu Arg Asp His Ala  
 305 310 315 320

Val Val Val Gly Val Tyr Arg Pro Pro Pro Lys Val Lys Asn  
 325 330

1416

&lt;210&gt; 1364

&lt;211&gt; 602

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (356)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1364

Pro Gly Ala Glu Lys Ser Gly Arg Ala Ala Glu Arg Pro Gly Arg Gly  
 1 5 10 15

Pro Gly Arg Gly Ala His Ser Arg Pro Thr Ala Pro Arg Glu Arg Ala  
 20 25 30

Pro Arg Ser Pro Ala Pro Ser Pro Pro Gly Met Gly Arg Ala Ala Ala  
 35 40 45

Ala Glu Ala Pro Ala Trp Pro Gly Arg Thr Arg Pro Glu Ala Glu Gly  
 50 55 60

Arg Ala Arg Ala Gln Leu Pro Gly His Gln Ile Gly Ala Arg Arg Ala  
 65 70 75 80

Gly Gly Pro Arg Ala Gly Leu Glu Met Ser Trp Pro Arg Arg Leu Leu  
 85 90 95

Leu Arg Tyr Leu Phe Pro Ala Leu Leu Leu His Gly Leu Gly Glu Gly  
 100 105 110

Ser Ala Leu Leu His Pro Asp Ser Arg Ser His Pro Arg Ser Leu Glu  
 115 120 125

Lys Ser Ala Trp Arg Ala Phe Lys Glu Ser Gln Cys His His Met Leu  
 130 135 140

Lys His Leu His Asn Gly Ala Arg Ile Thr Val Gln Met Pro Pro Thr  
 145 150 155 160

Ile Glu Gly His Trp Val Ser Thr Gly Cys Glu Val Arg Ser Gly Pro  
 165 170 175

Glu Phe Ile Thr Arg Ser Tyr Arg Phe Tyr His Asn Asn Thr Phe Lys  
 180 185 190

Ala Tyr Gln Phe Tyr Tyr Gly Ser Asn Arg Cys Thr Asn Pro Thr Tyr



1417

195	200	205
Thr Leu Ile Ile Arg Gly Lys Ile Arg Leu Arg Gln Ala Ser Trp Ile 210 215 220		
Ile Arg Gly Gly Thr Glu Ala Asp Tyr Gln Leu His Asn Val Gln Val 225 230 235 240		
Ile Cys His Thr Glu Ala Val Ala Glu Lys Leu Gly Gln Gln Val Asn 245 250 255		
Arg Thr Cys Pro Gly Phe Leu Ala Asp Gly Gly Pro Trp Val Gln Asp 260 265 270		
Val Ala Tyr Asp Leu Trp Arg Glu Glu Asn Gly Cys Glu Cys Thr Lys 275 280 285		
Ala Val Asn Phe Ala Met His Glu Leu Gln Leu Ile Arg Val Glu Lys 290 295 300		
Gln Tyr Leu His His Asn Leu Asp His Leu Val Glu Glu Leu Phe Leu 305 310 315 320		
Gly Asp Ile His Thr Asp Ala Thr Gln Arg Met Phe Tyr Arg Pro Ser 325 330 335		
Ser Tyr Gln Pro Pro Leu Gln Asn Ala Lys Asn His Asp His Ala Cys 340 345 350		
Ile Ala Cys Xaa Ile Ile Tyr Arg Ser Asp Glu His His Pro Pro Ile 355 360 365		
Leu Pro Pro Lys Ala Asp Leu Thr Ile Gly Leu His Gly Glu Trp Val 370 375 380		
Ser Gln Arg Cys Glu Val Arg Pro Glu Val Leu Phe Leu Thr Arg His 385 390 395 400		
Phe Ile Phe His Asp Asn Asn Asn Thr Trp Glu Gly His Tyr Tyr His 405 410 415		
Tyr Ser Asp Pro Val Cys Lys His Pro Thr Phe Ser Ile Tyr Ala Arg 420 425 430		
Gly Arg Tyr Ser Arg Gly Val Leu Ser Ser Arg Val Met Gly Gly Thr 435 440 445		
Glu Phe Val Phe Lys Val Asn His Met Lys Val Thr Pro Met Asp Ala 450 455 460		
Ala Thr Ala Ser Leu Leu Asn Val Phe Asn Gly Asn Glu Cys Gly Ala		

1418

465                      470                      475                      480  
Glu Gly Ser Trp Gln Val Gly Ile Gln Gln Asp Val Thr His Thr Asn  
                                 485                      490                      495  
Gly Cys Val Ala Leu Gly Ile Lys Leu Pro His Thr Glu Tyr Glu Ile  
                                 500                      505                      510  
Phe Lys Met Glu Gln Asp Ala Arg Gly Arg Tyr Leu Leu Phe Asn Gly  
                                 515                      520                      525  
Gln Arg Pro Ser Asp Gly Ser Ser Pro Asp Arg Pro Glu Lys Arg Ala  
                                 530                      535                      540  
Thr Ser Tyr Gln Met Pro Leu Val Gln Cys Ala Ser Ser Ser Pro Arg  
545                                   550                      555                      560  
Ala Glu Asp Leu Ala Glu Asp Ser Gly Ser Ser Leu Tyr Gly Arg Ala  
                                 565                      570                      575  
Pro Gly Arg His Thr Trp Ser Leu Leu Leu Ala Ala Leu Ala Cys Leu  
                                 580                      585                      590  
Val Pro Leu Leu His Trp Asn Ile Arg Arg  
                                 595                      600

&lt;210&gt; 1365

&lt;211&gt; 158

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (78)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (98)

1419

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (141)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (142)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1365

Ser	Asn	Ser	Gly	Tyr	Pro	Phe	Trp	Thr	Pro	Ser	Met	Leu	Trp	Lys	Leu
1				5					10					15	

Cys	Thr	Phe	Thr	Leu	Leu	Asn	Lys	Ala	Xaa	Ser	Phe	Phe	Ser	Leu	Ser
			20					25					30		

Val	His	Val	Ser	Phe	Thr	His	Xaa	Gly	Gln	Leu	Pro	His	His	Phe	Phe
		35						40				45			

Gly	Val	Ala	Trp	Gln	Glu	Pro	Gln	Val	Leu	His	Leu	Gly	Glu	Pro	Asp
	50					55					60				

Arg	Arg	Leu	Gln	Lys	Arg	Ile	Lys	Ala	Ile	Lys	Leu	Gln	Xaa	Ile	Leu
65					70					75				80	

Gln	Met	Glu	Pro	Gln	Met	Ser	Ser	Ala	His	Gly	Phe	Tyr	Arg	Gly	Pro
				85						90				95	

Leu	Xaa	Gln	Pro	Ala	Gly	Pro	Ser	Ile	Thr	Leu	Glu	Asn	Ser	Pro	Leu
			100					105					110		

Glu	Asp	Thr	Lys	Leu	Gln	Gly	Pro	Phe	Phe	Thr	Pro	Asn	Gln	Gln	Glu
		115					120						125		

Val	Ala	Arg	Thr	Asp	Cys	His	Xaa	Val	Pro	Asn	Ser	Xaa	Xaa	Gly	Cys
	130						135					140			

Pro	Val	Leu	Glu	Ala	Gly	Phe	Arg	Gly	Gly	Ala	Gln	Leu	Gly
145					150					155			

&lt;210&gt; 1366

1420

<211> 466  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (4)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (12)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (205)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (220)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (347)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1366  
 Ser Thr Arg Xaa Arg Glu Gly Asn Ser His Ser Xaa Gly His Lys Thr  
     1                    5                    10                    15  
 Ile Gln Gly Ser Leu Gly Arg Leu Ser Ser Ala Val Pro Gly Ser Gly  
           20                    25                    30  
 Ala Glu Leu Ser Pro Val Pro Asn Thr Asp Gly Thr Met Asn Ser Gly  
           35                    40                    45  
 His Ser Phe Ser Gln Thr Pro Ser Ala Ser Phe His Gly Ala Gly Gly  
           50                    55                    60  
 Gly Trp Gly Arg Pro Arg Ser Phe Pro Arg Ala Pro Thr Val His Gly  
     65                    70                    75                    80  
 Gly Ala Gly Gly Ala Arg Ile Ser Leu Ser Phe Thr Thr Arg Ser Cys  
                     85                    90                    95  
 Pro Pro Pro Gly Gly Ser Trp Gly Ser Gly Arg Ser Ser Pro Leu Leu  
           100                    105                    110

1421

Gly Gly Asn Gly Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala  
 115 120 125  
 Ser Tyr Leu Glu Lys Val Arg Ala Leu Glu Glu Ala Asn Met Lys Leu  
 130 135 140  
 Glu Ser Arg Ile Leu Lys Trp His Gln Gln Arg Asp Pro Gly Ser Lys  
 145 150 155 160  
 Lys Asp Tyr Ser Gln Tyr Glu Glu Asn Ile Thr His Leu Gln Glu Gln  
 165 170 175  
 Ile Val Asp Gly Lys Met Thr Asn Ala Gln Ile Ile Leu Leu Ile Asp  
 180 185 190  
 Asn Ala Arg Met Ala Val Asp Asp Phe Asn Leu Lys Xaa Glu Asn Glu  
 195 200 205  
 His Ser Phe Lys Lys Asp Leu Glu Ile Glu Val Xaa Gly Leu Arg Arg  
 210 215 220  
 Thr Leu Asp Asn Leu Thr Ile Val Thr Thr Asp Leu Glu Gln Glu Val  
 225 230 235 240  
 Glu Gly Met Arg Lys Glu Leu Ile Leu Met Lys Lys His His Glu Gln  
 245 250 255  
 Glu Met Glu Lys His His Val Pro Ser Asp Phe Asn Val Asn Val Lys  
 260 265 270  
 Val Asp Thr Gly Pro Arg Glu Asp Leu Ile Lys Val Leu Glu Asp Met  
 275 280 285  
 Arg Gln Glu Tyr Glu Leu Ile Ile Lys Lys Lys His Arg Asp Leu Asp  
 290 295 300  
 Thr Trp Tyr Lys Glu Gln Ser Ala Ala Met Ser Gln Glu Ala Ala Ser  
 305 310 315 320  
 Pro Ala Thr Val Gln Ser Arg Gln Gly Asp Ile His Glu Leu Lys Arg  
 325 330 335  
 Thr Phe Gln Ala Leu Glu Ile Asp Leu Gln Xaa Gln Tyr Ser Thr Lys  
 340 345 350  
 Ser Ala Leu Glu Asn Met Leu Ser Glu Thr Gln Ser Arg Tyr Ser Cys  
 355 360 365  
 Lys Leu Gln Asp Met Gln Glu Ile Ile Ser His Tyr Glu Glu Glu Leu  
 370 375 380

1422

Thr Gln Leu Arg His Glu Leu Glu Arg Gln Asn Asn Glu Tyr Gln Val  
 385 390 395 400

Leu Leu Gly Ile Lys Thr His Leu Glu Lys Glu Ile Thr Thr Tyr Arg  
 405 410 415

Arg Leu Leu Glu Gly Glu Ser Glu Gly Thr Arg Glu Glu Ser Lys Ser  
 420 425 430

Ser Met Lys Val Ser Ala Thr Pro Lys Ile Lys Ala Ile Thr Gln Glu  
 435 440 445

Thr Ile Asn Gly Arg Leu Val Leu Cys Gln Val Asn Glu Ile Gln Lys  
 450 455 460

His Ala  
 465

<210> 1367

<211> 153

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (138)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1423

&lt;221&gt; SITE

&lt;222&gt; (152)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1367

Leu Arg Phe Ala Ser Pro Gly Pro Gly Ala Gly Arg Ala Arg Asp Ser  
 1 5 10 15

Gln Arg Lys Trp Arg Arg Leu Arg Ala Arg Pro Leu Leu Gly Pro Gly  
 20 25 30

Gln Gly Trp Ser Trp Ala Gly Ile Pro Ser Ser Ala Ala Ala Gln Arg  
 35 40 45

Ala Gly Pro Pro Ala Gly Ala Leu Glu Ala Leu Ser Pro Gly Gly Ala  
 50 55 60

Arg Ala His Ala Glu Arg Arg Gly Glu Met Arg Ala Thr Pro Leu Ala  
 65 70 75 80

Ala Pro Ala Gly Ser Leu Ser Arg Lys Lys Arg Leu Glu Leu Asp Asp  
 85 90 95

Asn Leu Asp Thr Glu Arg Pro Val Gln Lys Arg Ala Arg Ser Gly Pro  
 100 105 110

Gln Pro Arg Leu Pro Pro Cys Leu Leu Pro Leu Ser Pro Pro Thr Ala  
 115 120 125

Pro Asp Arg Ala Thr Ala Val Xaa Thr Xaa Ser Arg Xaa Xaa Xaa Tyr  
 130 135 140

Val Leu Leu Glu Ala Arg Arg Xaa Ala  
 145 150

&lt;210&gt; 1368

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1424

&lt;400&gt; 1368

Ser Asp Asn Xaa Thr Asn Gly Cys Gly Leu Glu Ser Xaa Gly Asn Thr  
 1 5 10 15

Val Thr Pro Val Asn Val Asn Glu Val Lys Pro Ile Asn Lys Gly Glu  
 20 25 30

Glu Gln Ile Gly Phe Glu Leu Val Glu Lys Leu Phe Gln Gly Gln Leu  
 35 40 45

Val Leu Arg Thr Arg Cys Leu Glu Cys Glu Ser Leu Thr Glu Arg Arg  
 50 55 60

Glu Asp Phe Gln Asp Ile Ser Val Pro Val Gln Glu Asp Glu Leu Ser  
 65 70 75 80

Lys Val Glu Glu Ser Ser Glu Ile Ser Pro Glu Pro Lys Thr Glu Met  
 85 90 95

Lys Thr Leu Arg Trp Ala Ile Ser Gln Phe Ala Ser Val Glu Arg Ile  
 100 105 110

Val Gly Glu Asp Lys Tyr Phe Cys Glu Asn Cys His His Tyr Thr Glu  
 115 120 125

Ala Glu Arg Ser Leu Leu Phe Asp Lys Met Pro Glu Val Ile Thr Ile  
 130 135 140

His Leu Lys Cys Phe Ala Ala Ser Gly Leu Glu Phe Asp Cys Tyr Gly  
 145 150 155 160

Gly Gly Leu Ser Lys Ile Asn Thr Pro Leu Leu Thr Pro Leu Lys Leu  
 165 170 175

Ser Leu Glu Glu Trp Ser Thr Lys Pro Thr Asn Asp Ser Tyr Gly Leu  
 180 185 190

Phe Ala Val Val Met His Ser Gly Ile Thr Ile Ser Ser Gly His Tyr  
 195 200 205

Thr Ala Ser Val Lys Val Thr Asp Leu Asn Ser Leu Glu Leu Asp Lys  
 210 215 220

Gly Asn Phe Val Val Asp Gln Met Cys Glu Ile Gly Lys Pro Glu Pro  
 225 230 235 240

Leu Asn Glu Glu Glu Ala Arg Gly Val Val Glu Asn Tyr Asn Asp Glu  
 245 250 255

Glu Val Ser Ile Arg Val Gly Gly Asn Thr Gln Pro Ser Lys Val Leu



1425

260					265					270						
Asn	Lys	Lys	Asn	Val	Glu	Ala	Ile	Gly	Leu	Leu	Gly	Gly	Gln	Lys	Ser	
275					280					285						
Lys	Ala	Asp	Tyr	Glu	Leu	Tyr	Asn	Lys	Ala	Ser	Asn	Pro	Asp	Lys	Val	
290					295					300						
Ala	Ser	Thr	Ala	Phe	Ala	Glu	Asn	Arg	Asn	Ser	Glu	Thr	Ser	Asp	Thr	
305					310					315					320	
Thr	Gly	Thr	His	Glu	Ser	Asp	Arg	Asn	Lys	Glu	Ser	Ser	Asp	Gln	Thr	
325					330					335						
Gly	Ile	Asn	Ile	Ser	Gly	Phe	Glu	Asn	Lys	Ile	Ser	Tyr	Val	Val	Gln	
340					345					350						
Ser	Leu	Lys	Glu	Tyr	Glu	Gly	Lys	Trp	Leu	Leu	Phe	Asp	Asp	Ser	Glu	
355					360					365						
Val	Lys	Val	Thr	Glu	Glu	Lys	Asp	Phe	Leu	Asn	Ser	Leu	Ser	Pro	Ser	
370					375					380						
Thr	Ser	Pro	Thr	Ser	Thr	Pro	Tyr	Leu	Leu	Phe	Tyr	Lys	Lys	Leu		
385					390					395						

**<210> 1369**

**<211> 260**

<212> PRT

<213> Homo sapiens

**<220>**

**<221> SITE**

**<222> (3)**

<223> Xaa equals any of the naturally occurring L-amino acids

**<400> 1369**

Val	Phe	Xaa	Ser	Phe	Phe	Ala	Glu	Lys	Glu	Gln	Gln	Glu	Ala	Ile	Glu
1				5					10					15	
His	Ile	Asp	Glu	Val	Gln	Asn	Glu	Ile	Asp	Arg	Leu	Asn	Glu	Gln	Ala
			20					25					30		
Ser	Glu	Glu	Ile	Leu	Lys	Val	Glu	Gln	Lys	Tyr	Asn	Lys	Leu	Arg	Gln
		35					40					45			
Pro	Phe	Phe	Gln	Lys	Arg	Ser	Glu	Leu	Ile	Ala	Lys	Ile	Pro	Asn	Phe
	50					55					60				

1426

Trp Val Thr Thr Phe Val Asn His Pro Gln Val Ser Ala Leu Leu Gly  
 65 70 75 80  
 Glu Glu Asp Glu Glu Ala Leu His Tyr Leu Thr Arg Val Glu Val Thr  
 85 90 95  
 Glu Phe Glu Asp Ile Lys Ser Gly Tyr Arg Ile Asp Phe Tyr Phe Asp  
 100 105 110  
 Glu Asn Pro Tyr Phe Glu Asn Lys Val Leu Ser Lys Glu Phe His Leu  
 115 120 125  
 Asn Glu Ser Gly Asp Pro Ser Ser Lys Ser Thr Glu Ile Lys Trp Lys  
 130 135 140  
 Ser Gly Lys Asp Leu Thr Lys Arg Ser Ser Gln Thr Gln Asn Lys Ala  
 145 150 155 160  
 Ser Arg Lys Arg Gln His Glu Glu Pro Glu Ser Phe Phe Thr Trp Phe  
 165 170 175  
 Thr Asp His Ser Asp Ala Gly Ala Asp Glu Leu Gly Glu Val Ile Lys  
 180 185 190  
 Asp Asp Ile Trp Pro Asn Pro Leu Gln Tyr Tyr Leu Val Pro Asp Met  
 195 200 205  
 Asp Asp Glu Glu Gly Glu Gly Glu Glu Asp Asp Asp Asp Asp Glu Glu  
 210 215 220  
 Glu Glu Gly Leu Glu Asp Ile Asp Glu Glu Gly Asp Glu Asp Glu Gly  
 225 230 235 240  
 Glu Glu Asp Glu Asp Asp Asp Glu Gly Glu Glu Gly Glu Glu Asp Glu  
 245 250 255  
 Gly Glu Asp Asp  
 260

&lt;210&gt; 1370

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1370

Lys Gly Glu Ala Ala Ala Phe Ser Ala Thr Phe Pro Ile Ala Arg Gln  
 1 5 10 15

Glu Phe Leu Ser Val Thr Thr Ile Ala Val Met Ser Gly Arg Gly Lys

1427

20 25 30  
 Gln Gly Gly Lys Ala Arg Ala Lys Ala Lys Ser Arg Ser Ser Arg Ala  
 35 40 45  
 Gly Leu Gln Phe Pro Val Gly Glu Cys Ile Ala Leu Arg Lys Gly Asn  
 50 55 60  
 Tyr Ala Glu Arg Val Gly Ala Gly Ala Pro Val Tyr Met Ala Ala Val  
 65 70 75 80  
 Leu Glu Tyr Leu Thr Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala Ala  
 85 90 95  
 Arg Asp Asn Lys Lys Thr Arg Ile Ile Pro Arg His Leu Gln Leu Ala  
 100 105 110  
 Ile Arg Asn Asp Glu Glu Leu Asn Lys Leu Leu Gly Lys Val Thr Ile  
 115 120 125  
 Ala Gln Gly Gly Val Leu Pro Asn Ile Gln Ala Val Leu Leu Pro Lys  
 130 135 140  
 Lys Thr Glu Ser His His Lys Ala Lys Gly Lys  
 145 150 155

&lt;210&gt; 1371

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1371

Phe Pro Gly Arg Thr His Ala Leu Cys Arg Gly Ala Ala Ser Arg Gly  
 1 5 10 15  
 Leu Leu Cys Lys Trp Ala Pro Trp Pro Ser Ala Pro Val Pro Ala Thr  
 20 25 30  
 Arg Asp Arg Ala Pro Arg Pro Ala Arg Gly Arg Arg Pro Asp Pro Thr  
 35 40 45  
 Ser Gln Gln Ala Lys Ala Trp Arg Pro Ser Pro Pro Ala Ala Arg Ser  
 50 55 60  
 Trp Pro Pro Thr Thr Thr Thr Gly Ala Ala Trp Val Pro Leu Pro Ala  
 65 70 75 80  
 Thr Ala Pro Ala Ala Val Pro Ser Ala Pro Gly Lys Pro Phe Pro Thr  
 85 90 95

1428

Pro Gln Val Ser Pro Arg Leu Thr Arg Val Ile Gly Gly Pro Ala Ser  
                   100                  105                  110

Phe Ser Gly Ser Pro Pro Ser Arg Ser Trp Pro Arg Cys Trp Ser Pro  
                   115                  120                  125

Gln Ser Thr Arg Asn Leu Pro Arg Pro Pro Ala Ala  
                   130                  135                  140

&lt;210&gt; 1372

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (126)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (127)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (128)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (142)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (147)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1372

Pro Trp Thr Leu Gly Gly Pro Glu Leu Asp Ala Met Gly Gly Cys Ala  
       1                  5                  10                  15

1429

Gly Ser Arg Arg Arg Phe Ser Asp Ser Glu Gly Glu Glu Thr Val Pro  
                   20                                  25                                  30  
 Glu Pro Arg Leu Pro Leu Leu Asp His Gln Gly Ala His Trp Lys Asn  
                   35                                  40                                  45  
 Ala Val Gly Phe Trp Leu Leu Gly Leu Cys Asn Asn Phe Ser Tyr Val  
                   50                                  55                                  60  
 Val Met Leu Ser Ala Ala His Asp Ile Leu Ser His Lys Arg Thr Ser  
                   65                                  70                                  75                                  80  
 Gly Asn Gln Ser His Val Asp Pro Gly Pro Thr Pro Ile Pro His Asn  
                                   85                                  90                                  95  
 Ser Ser Ser Arg Phe Asp Cys Asn Ser Val Ser Thr Ala Ala Val Leu  
                   100                                  105                                  110  
 Leu Ala Asp Ile Leu Pro Thr Leu Val Ile Lys Leu Leu Xaa Xaa Xaa  
                   115                                  120                                  125  
 Gly Leu His Leu Leu Pro Xaa Thr Val Glu Asp Ala Val Xaa Leu Cys  
                   130                                  135                                  140  
 Ala Leu Xaa Gly Thr Ala  
                   145                                  150

&lt;210&gt; 1373

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (121)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1373

Arg His Ser Arg Val Asp Pro Arg Val Arg Ala Arg Phe Arg Arg Arg  
           1                                  5                                  10                                  15

Arg Ala Phe Ala Xaa Leu Gly Trp Ser Ser Gly Arg Val Ser Arg Pro  
                   20                                  25                                  30

Glu	His	Val	Asp	Ala	His	Pro	Pro	Leu	Ser	Leu	Met	Glu	Val	Val	Thr
35			40					45							
Phe	Gly	Asp	Val	Ala	Val	His	Phe	Ser	Arg	Glu	Glu	Trp	Gln	Cys	Leu
50			55					60							
Asp	Pro	Gly	Gln	Arg	Ala	Leu	Tyr	Arg	Glu	Val	Met	Leu	Glu	Asn	His
65			70					75					80		
Ser	Ser	Val	Ala	Gly	Leu	Ala	Gly	Phe	Leu	Val	Phe	Lys	Pro	Glu	Leu
85				90					95						
Ile	Ser	Arg	Leu	Glu	Gln	Gly	Glu	Glu	Pro	Trp	Val	Leu	Asp	Leu	Gln
100			105					110							
Gly	Ala	Glu	Gly	Thr	Glu	Ala	Pro	Xaa	Thr	Ser	Lys	Thr	Gly	Glu	Ala
115			120					125							

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<210> 1374
<211> 398
<212> PRT
<213> Homo sapiens
```

<400> 1374

Ser	Ser	Trp	Leu	Arg	Ser	Arg	Ser	Gly	Met	Gln	Thr	Asp	Leu	Gln	Asn
1				5					10					15	
Leu	Gly	Asn	Asp	Ser	Gly	Asp	His	Ser	Asp	His	Met	His	Tyr	Tyr	Gln
			20					25					30		
Gly	Lys	Lys	Tyr	Phe	Arg	Asp	Arg	Arg	Gly	Gly	Gly	Arg	Asn	Ser	Asp
		35					40					45			
Trp	Ser	Ser	Asp	Thr	Asn	Arg	Gln	Gly	Gln	Gln	Ser	Ser	Ser	Asp	Cys
	50					55					60				
Tyr	Ile	Tyr	Asp	Ser	Ala	Thr	Gly	Tyr	Tyr	Tyr	Asp	Pro	Leu	Ala	Gly
65					70					75					80
Thr	Tyr	Tyr	Asp	Pro	Asn	Thr	Gln	Gln	Glu	Val	Tyr	Val	Pro	Gln	Asp
				85					90					95	
Pro	Gly	Leu	Pro	Glu	Glu	Glu	Glu	Ile	Lys	Glu	Lys	Lys	Pro	Thr	Ser
			100					105					110		
Gln	Gly	Lys	Ser	Ser	Ser	Lys	Lys	Glu	Met	Ser	Lys	Arg	Asp	Gly	Lys

1431

115	120	125
Glu Lys Lys Asp Arg Gly Val Thr Arg Phe Gln Glu Asn Ala Ser Glu		
130	135	140
Gly Lys Ala Pro Ala Glu Asp Val Phe Lys Lys Pro Leu Pro Pro Thr		
145	150	155 160
Val Lys Lys Glu Glu Ser Pro Pro Pro Pro Lys Val Val Asn Pro Leu		
	165	170 175
Ile Gly Leu Leu Gly Glu Tyr Gly Gly Asp Ser Asp Tyr Glu Glu Glu		
	180	185 190
Glu Glu Glu Glu Gln Thr Pro Pro Pro Gln Pro Arg Thr Ala Gln Pro		
	195	200 205
Gln Lys Arg Glu Glu Gln Thr Lys Lys Glu Asn Glu Glu Asp Lys Leu		
	210	215 220
Thr Asp Trp Asn Lys Leu Ala Cys Leu Leu Cys Arg Arg Gln Phe Pro		
	225	230 235 240
Asn Lys Glu Val Leu Ile Lys His Gln Gln Leu Ser Asp Leu His Lys		
	245	250 255
Gln Asn Leu Glu Ile His Arg Lys Ile Lys Gln Ser Glu Gln Glu Leu		
	260	265 270
Ala Tyr Leu Glu Arg Arg Glu Arg Glu Gly Lys Phe Lys Gly Arg Gly		
	275	280 285
Asn Asp Arg Arg Glu Lys Leu Gln Ser Phe Asp Ser Pro Glu Arg Lys		
	290	295 300
Arg Ile Lys Tyr Ser Arg Glu Thr Asp Ser Asp Arg Lys Leu Val Asp		
	305	310 315 320
Lys Glu Asp Ile Asp Thr Ser Ser Lys Gly Gly Cys Val Gln Gln Ala		
	325	330 335
Thr Gly Trp Arg Lys Gly Thr Gly Leu Gly Tyr Gly His Pro Gly Leu		
	340	345 350
Ala Ser Ser Glu Glu Ala Glu Gly Arg Met Arg Gly Pro Ser Val Gly		
	355	360 365
Ala Ser Gly Arg Thr Ser Lys Arg Gln Ser Asn Glu Thr Tyr Arg Asp		
	370	375 380
Ala Val Arg Arg Val Met Phe Ala Arg Tyr Lys Glu Leu Asp		

1432

385

390

395

&lt;210&gt; 1375

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (157)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (161)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (163)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1375

His	Arg	Gly	Lys	Arg	Tyr	Thr	Asp	Ser	Thr	Val	Arg	Asn	Ser	Arg	Val
1				5						10				15	

Asp	Pro	Arg	Val	Arg	Ser	Ala	Lys	Pro	Glu	Ser	Cys	Pro	Phe	Ser	Leu
		20					25						30		

Pro	Gly	Gln	His	Glu	Leu	His	His	Ser	Leu	His	Leu	Leu	His	Gln	Leu
	35					40					45				

Pro	Val	Pro	Gly	Leu	Cys	Pro	Gly	Ala	Gln	Leu	Arg	Arg	Pro	Ala	Gly
	50				55						60				

Gln	Gln	Arg	Gly	Gln	Arg	Leu	Cys	Arg	Arg	Trp	Gly	Leu	Trp	Phe	Pro
65				70						75					80

Asp	Leu	Arg	Val	Pro	Leu	His	Gln	Leu	Gln	Gly	Arg	His	Gly	Val	Arg
			85						90					95	

Gly	Pro	Gly	His	Arg	Asp	Ser	Arg	Gly	Ser	Gly	Arg	Asn	Gly	Ser	Ile
		100						105					110		

Gln	Asn	Glu	Lys	Glu	Thr	Met	Gln	Lys	Leu	Asn	Asp	Arg	Leu	Ala	Ser
	115						120					125			

Tyr	Leu	Asp	Lys	Met	Lys	Glu	Pro	Gly	Asp	Arg	Glu	Thr	Gly	Gly	Trp
	130						135						140		



1433

Lys Ala Lys Thr Arg Glu His Phe Gly Glu Glu Gly Xaa Gln Val Arg  
 145 150 155 160

Xaa Trp Xaa Pro Leu Ile Gln  
 165

&lt;210&gt; 1376

&lt;211&gt; 448

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1376

Leu Pro Asp Val Glu Lys Leu Gly Arg Arg Arg Gly Arg Lys Met Asp  
 1 5 10 15

Ser Val Glu Lys Gly Ala Ala Thr Ser Val Ser Asn Pro Arg Gly Arg  
 20 25 30

Pro Ser Arg Gly Arg Pro Pro Lys Leu Gln Arg Asn Ser Arg Gly Gly  
 35 40 45

Gln Gly Arg Gly Val Glu Lys Pro Pro His Leu Ala Ala Leu Ile Leu  
 50 55 60

Ala Arg Gly Gly Ser Lys Gly Ile Pro Leu Lys Asn Ile Lys His Leu  
 65 70 75 80

Ala Gly Val Pro Leu Ile Gly Trp Val Leu Arg Ala Ala Leu Asp Ser  
 85 90 95

Gly Ala Phe Gln Ser Val Trp Val Ser Thr Asp His Asp Glu Ile Glu  
 100 105 110

Asn Val Ala Lys Gln Phe Gly Ala Gln Val His Arg Arg Ser Ser Glu  
 115 120 125

Val Ser Lys Asp Ser Ser Thr Ser Leu Asp Ala Ile Ile Glu Phe Leu  
 130 135 140

Asn Tyr His Asn Glu Val Asp Ile Val Gly Asn Ile Gln Ala Thr Ser  
 145 150 155 160

Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met Ile Arg  
 165 170 175

Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His Gln Phe  
 180 185 190

1434

Arg Trp Ser Glu Ile Gln Lys Gly Val Arg Glu Val Thr Glu Pro Leu		
195	200	205
Asn Leu Asn Pro Ala Lys Arg Pro Arg Arg Gln Asp Trp Asp Gly Glu		
210	215	220
Leu Tyr Glu Asn Gly Ser Phe Tyr Phe Ala Lys Arg His Leu Ile Glu		
225	230	235 240
Met Gly Tyr Leu Gln Gly Gly Lys Met Ala Tyr Tyr Glu Met Arg Ala		
245	250	255
Glu His Ser Val Asp Ile Asp Val Asp Ile Asp Trp Pro Ile Ala Glu		
260	265	270
Gln Arg Val Leu Arg Tyr Gly Tyr Phe Gly Lys Glu Lys Leu Lys Glu		
275	280	285
Ile Lys Leu Leu Val Cys Asn Ile Asp Gly Cys Leu Thr Asn Gly His		
290	295	300
Ile Tyr Val Ser Gly Asp Gln Lys Glu Ile Ile Ser Tyr Asp Val Lys		
305	310	315 320
Asp Ala Ile Gly Ile Ser Leu Leu Lys Lys Ser Gly Ile Glu Val Arg		
325	330	335
Leu Ile Ser Glu Arg Ala Cys Ser Lys Gln Thr Leu Ser Ser Leu Lys		
340	345	350
Leu Asp Cys Lys Met Glu Val Ser Val Ser Asp Lys Leu Ala Val Val		
355	360	365
Asp Glu Trp Arg Lys Glu Met Gly Leu Cys Trp Lys Glu Val Ala Tyr		
370	375	380
Leu Gly Asn Glu Val Ser Asp Glu Glu Cys Leu Lys Arg Val Gly Leu		
385	390	395 400
Ser Gly Ala Pro Ala Asp Ala Cys Ser Thr Ala Gln Lys Ala Val Gly		
405	410	415
Tyr Ile Cys Lys Cys Asn Gly Gly Arg Gly Ala Ile Arg Glu Phe Ala		
420	425	430
Glu His Ile Cys Leu Leu Met Glu Lys Val Asn Asn Ser Cys Gln Lys		
435	440	445

1435

&lt;210&gt; 1377

&lt;211&gt; 469

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1377

Gly Gly Pro Ala Lys Met Ala Ala Ser Cys Leu Val Leu Leu Ala Leu  
 1 5 10 15

Cys Leu Leu Leu Pro Leu Leu Leu Leu Gly Gly Trp Lys Arg Trp Arg  
 20 25 30

Arg Gly Arg Ala Ala Arg His Val Val Ala Val Val Leu Gly Asp Val  
 35 40 45

Gly Arg Ser Pro Arg Met Gln Tyr His Ala Leu Ser Leu Ala Met His  
 50 55 60

Gly Phe Ser Val Thr Leu Leu Gly Phe Cys Asn Ser Lys Pro His Asp  
 65 70 75 80

Glu Leu Leu Gln Asn Asn Arg Ile Gln Ile Val Gly Leu Thr Glu Leu  
 85 90 95

Gln Ser Leu Ala Val Gly Pro Arg Val Phe Gln Tyr Gly Val Lys Val  
 100 105 110

Val Leu Gln Ala Met Tyr Leu Leu Trp Lys Leu Met Trp Arg Glu Pro  
 115 120 125

Gly Ala Tyr Ile Phe Leu Gln Asn Pro Pro Gly Leu Pro Ser Ile Ala  
 130 135 140

Val Cys Trp Phe Val Gly Cys Leu Cys Gly Ser Lys Leu Val Ile Asp  
 145 150 155 160

Trp His Asn Tyr Gly Tyr Ser Ile Met Gly Leu Val His Gly Pro Asn  
 165 170 175

His Pro Leu Val Leu Leu Ala Lys Trp Tyr Glu Lys Phe Phe Gly Arg  
 180 185 190

Leu Ser His Leu Asn Leu Cys Val Thr Asn Ala Met Arg Glu Asp Leu  
 195 200 205

Ala Asp Asn Trp His Ile Arg Ala Val Thr Val Tyr Asp Lys Pro Ala  
 210 215 220

Ser Phe Phe Lys Glu Thr Pro Leu Asp Leu Gln His Arg Leu Phe Met

1436

225                      230                      235                      240  
 Lys Leu Gly Ser Met His Ser Pro Phe Arg Ala Arg Ser Glu Pro Glu  
                                  245                      250                      255  
 Asp Pro Val Thr Glu Arg Ser Ala Phe Thr Glu Arg Asp Ala Gly Ser  
                                  260                      265                      270  
 Gly Leu Val Thr Arg Leu Arg Glu Arg Pro Ala Leu Leu Val Ser Ser  
                                  275                      280                      285  
 Thr Ser Trp Thr Glu Asp Glu Asp Phe Ser Ile Leu Leu Ala Ala Leu  
                                  290                      295                      300  
 Glu Lys Phe Glu Gln Leu Thr Leu Asp Gly His Asn Leu Pro Ser Leu  
 305                                   310                      315                      320  
 Val Cys Val Ile Thr Gly Lys Gly Pro Leu Arg Glu Tyr Tyr Ser Arg  
                                  325                      330                      335  
 Leu Ile His Gln Lys His Phe Gln His Ile Gln Val Cys Thr Pro Trp  
                                  340                      345                      350  
 Leu Glu Ala Glu Asp Tyr Pro Leu Leu Leu Gly Ser Ala Asp Leu Gly  
                                  355                      360                      365  
 Val Cys Leu His Thr Ser Ser Ser Gly Leu Asp Leu Pro Met Lys Val  
                                  370                      375                      380  
 Val Asp Met Phe Gly Cys Cys Leu Pro Val Cys Ala Val Asn Phe Lys  
 385                                   390                      395                      400  
 Cys Leu His Glu Leu Val Lys His Glu Glu Asn Gly Leu Val Phe Glu  
                                  405                      410                      415  
 Asp Ser Glu Glu Leu Ala Ala Gln Leu Gln Met Leu Phe Ser Asn Phe  
                                  420                      425                      430  
 Pro Asp Pro Ala Gly Lys Leu Asn Gln Phe Arg Lys Asn Leu Arg Glu  
                                  435                      440                      445  
 Ser Gln Gln Leu Arg Trp Asp Glu Ser Trp Val Gln Thr Val Leu Pro  
                                  450                      455                      460  
 Leu Val Met Asp Thr  
 465

&lt;210&gt; 1378

&lt;211&gt; 314

1437

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (93)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1378

Glu Lys Ala Ala Gly Ala Gly Lys Ser His Leu Ala Ile Val Gln Lys  
 1 5 10 15

Val Asn Asn Glu Gly Glu Gly Asp Pro Phe Tyr Glu Val Leu Gly Leu  
 20 25 30

Val Thr Leu Glu Asp Val Ile Glu Glu Ile Ile Lys Ser Glu Ile Leu  
 35 40 45

Asp Glu Ser Asp Met Tyr Thr Asp Asn Arg Ser Arg Lys Arg Val Ser  
 50 55 60

Glu Lys Asn Lys Arg Asp Phe Ser Ala Phe Lys Asp Ala Asp Asn Glu  
 65 70 75 80

Leu Lys Val Lys Ile Ser Pro Gln Leu Leu Leu Ala Xaa His Arg Phe  
 85 90 95

Leu Ala Thr Glu Val Ser Gln Phe Ser Pro Ser Leu Ile Ser Glu Lys  
 100 105 110

Ile Leu Leu Arg Leu Leu Lys Tyr Pro Asp Val Ile Gln Glu Leu Lys  
 115 120 125

Phe Asp Glu His Asn Lys Tyr Tyr Ala Arg His Tyr Leu Tyr Thr Arg  
 130 135 140

Asn Lys Pro Ala Asp Tyr Phe Ile Leu Ile Leu Gln Gly Lys Val Glu  
 145 150 155 160

Val Glu Ala Gly Lys Glu Asn Met Lys Phe Glu Thr Gly Ala Phe Ser  
 165 170 175

Tyr Tyr Gly Thr Met Ala Leu Thr Ser Val Pro Ser Asp Arg Ser Pro  
 180 185 190

Ala His Pro Thr Pro Leu Ser Arg Ser Ala Ser Leu Ser Tyr Pro Asp  
 195 200 205

Arg Thr Asp Val Ser Thr Ala Ala Thr Leu Ala Gly Ser Ser Asn Gln  
 210 215 220

1438

Phe Gly Ser Ser Val Leu Gly Gln Tyr Ile Ser Asp Phe Ser Val Arg  
225 230 235 240

Ala Leu Val Asp Leu Gln Tyr Ile Lys Ile Thr Arg Gln Gln Tyr Gln  
245 250 255

Asn Gly Leu Leu Ala Ser Arg Met Glu Asn Ser Pro Gln Phe Pro Ile  
260 265 270

Asp Gly Cys Thr Thr His Met Glu Asn Leu Ala Glu Lys Ser Glu Leu  
275 280 285

Pro Val Val Asp Glu Thr Thr Thr Leu Leu Asn Glu Arg Asn Ser Leu  
290 295 300

Leu His Lys Ala Ser His Glu Asn Ala Ile  
305 310

<210> 1379

<211> 131

<212> PRT

<213> Homo sapiens

<400> 1379

Ser Cys Pro Val Leu Lys Met Phe Pro Glu Gln Gln Lys Glu Glu Phe  
1 5 10 15

Val Ser Val Trp Val Arg Asp Pro Arg Ile Gln Lys Glu Asp Phe Trp  
20 25 30

His Ser Tyr Ile Asp Tyr Glu Ile Cys Ile His Thr Asn Ser Met Cys  
35 40 45

Phe Thr Met Lys Thr Ser Cys Val Arg Arg Arg Tyr Arg Glu Phe Val  
50 55 60

Trp Leu Arg Gln Arg Leu Gln Ser Asn Ala Leu Leu Val Gln Leu Pro  
65 70 75 80

Glu Leu Pro Ser Lys Asn Leu Phe Phe Asn Met Asn Asn Arg Gln His  
85 90 95

Val Asp Gln Arg Arg Gln Gly Leu Gly Asn Phe Leu Arg Lys Val Leu  
100 105 110

Gln Met His Phe Cys Phe Gln Ile Ala Ala Phe Thr Ser Ser Leu Gln  
115 120 125

Ser His Leu

1439

130

&lt;210&gt; 1380

&lt;211&gt; 219

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1380

Pro Gly Ala Ala Trp Ser Arg Pro Asp Leu Arg Gly Cys Cys Thr Gly  
 1 5 10 15

Pro Gln Pro Ala Leu Arg Met Leu Val Leu Pro Ser Pro Cys Pro Gln  
 20 25 30

Pro Leu Ala Phe Ser Ser Val Glu Thr Met Glu Gly Pro Pro Arg Arg  
 35 40 45

Thr Cys Arg Ser Pro Glu Pro Gly Pro Ser Ser Ser Ile Gly Ser Pro  
 50 55 60

Gln Ala Ser Ser Pro Pro Arg Pro Asn His Tyr Leu Leu Ile Asp Thr  
 65 70 75 80

Gln Gly Val Pro Tyr Thr Val Leu Val Asp Glu Glu Ser Gln Arg Glu  
 85 90 95

Pro Gly Ala Ser Gly Ala Pro Gly Gln Lys Lys Cys Tyr Ser Cys Pro  
 100 105 110

Val Cys Ser Arg Val Phe Glu Tyr Met Ser Tyr Leu Gln Arg His Ser  
 115 120 125

Ile Thr His Ser Glu Val Lys Pro Phe Glu Cys Asp Ile Cys Gly Lys  
 130 135 140

Ala Phe Lys Arg Ala Ser His Leu Ala Arg His His Ser Ile His Leu  
 145 150 155 160

Ala Gly Gly Gly Arg Pro His Gly Cys Pro Leu Cys Pro Arg Arg Phe  
 165 170 175

Arg Asp Ala Gly Glu Leu Ala Gln His Ser Arg Val His Ser Gly Glu  
 180 185 190

Arg Pro Phe Gln Cys Pro His Cys Pro Arg Arg Phe Met Glu Gln Asn  
 195 200 205

Thr Leu Gln Lys His Thr Arg Trp Lys His Pro  
 210 215

1440

&lt;210&gt; 1381

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1381

Gly Val Ala Leu Phe Lys Ser Ala Ala Gly Asp Gln Pro Thr Ala Ala  
 1 5 10 15  
 Cys Ile Cys Ile Gln Arg Gln Val Pro Pro Val Pro Ala Ala Arg Ala  
 20 25 30  
 Pro Gln Ser Arg Thr Arg Ser Ala Gln Ala Lys Leu Ala Leu Thr Met  
 35 40 45  
 Pro Val Lys Gly Gly Thr Lys Cys Ile Lys Tyr Leu Leu Phe Gly Phe  
 50 55 60  
 Asn Phe Ile Phe Trp Leu Ala Gly Ile Ala Val Leu Ala Ile Gly Leu  
 65 70 75 80  
 Trp Leu Arg Phe Asp Ser Gln Thr Lys Ser Ile Phe Glu Gln Glu Thr  
 85 90 95  
 Asn Asn Asn Asn Ser Ser Phe Tyr Thr Gly Val Tyr Ile Leu Ile Gly  
 100 105 110  
 Ala Gly Ala Leu Met Met Leu Val Gly Phe Leu Gly Cys Cys Gly Ala  
 115 120 125  
 Val Gln Glu Ser Gln Cys Met Leu Gly Leu Phe Phe Gly Phe Leu Leu  
 130 135 140  
 Val Ile Phe Ala Ile Glu Ile Ala Ala Ala Ile Trp Gly Tyr Ser His  
 145 150 155 160  
 Lys Asp Glu Val Ile Lys Glu Val Gln Glu Phe Tyr Lys Asp Thr Tyr  
 165 170 175  
 Asn Lys Leu Lys Thr Lys Asp Glu Pro Gln Arg Glu Thr Leu Lys Ala  
 180 185 190  
 Ile His Tyr Ala Leu Asn Cys Cys Gly Leu Ala Gly Gly Val Glu Gln  
 195 200 205  
 Phe Ile Ser Asp Ile Cys Pro Lys Lys Asp Val Leu Glu Thr Phe Thr  
 210 215 220



1441

Val Lys Ser Cys Pro Asp Ala Ile Lys Glu Val Phe Asp Asn Lys Phe  
225 230 235 240

His Ile Ile Gly Ala Val Gly Ile Gly Ile Ala Val Val Met Ile Phe  
245 250 255

Gly Met Ile Phe Ser Met Ile Leu Cys Cys Ala Ile Arg Arg Asn Arg  
260 265 270

Glu Met Val  
275

<210> 1382

<211> 766

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1382

Pro Cys Trp Glu Leu Val Gly Pro Pro Gly Trp Gln Xaa Ile Arg Ala  
1 5 10 15

Xaa Pro Ala Thr Val His Arg Ala Glu Ile Leu Ser Phe Pro Arg Ser  
20 25 30

Lys Thr Ser Glu Pro Ala Lys Arg Gly Arg Thr Ala Ser Ala Ala Met  
35 40 45

Ala Leu Lys Asp Tyr Ala Leu Glu Lys Glu Lys Val Lys Lys Phe Leu  
50 55 60

Gln Glu Phe Tyr Gln Asp Asp Glu Leu Gly Lys Lys Gln Phe Lys Tyr  
65 70 75 80

Gly Asn Gln Leu Val Arg Leu Ala His Arg Glu Gln Val Ala Leu Tyr

1442

85					90					95					
Val	Asp	Leu	Asp	Asp	Val	Ala	Glu	Asp	Asp	Pro	Glu	Leu	Val	Asp	Ser
			100					105					110		
Ile	Cys	Glu	Asn	Ala	Arg	Arg	Tyr	Ala	Lys	Xaa	Phe	Ala	Asp	Ala	Val
		115					120					125			
Gln	Glu	Leu	Leu	Pro	Gln	Tyr	Lys	Glu	Arg	Glu	Val	Val	Asn	Lys	Asp
		130					135					140			
Val	Leu	Asp	Val	Tyr	Ile	Glu	His	Arg	Leu	Met	Met	Glu	Gln	Arg	Ser
145						150					155				160
Arg	Asp	Pro	Gly	Met	Val	Arg	Ser	Pro	Gln	Asn	Gln	Tyr	Pro	Ala	Glu
				165					170					175	
Leu	Met	Arg	Arg	Phe	Glu	Leu	Tyr	Phe	Gln	Gly	Pro	Ser	Ser	Asn	Lys
			180					185						190	
Pro	Arg	Val	Ile	Arg	Glu	Val	Arg	Ala	Asp	Ser	Val	Gly	Lys	Leu	Val
		195					200					205			
Thr	Val	Arg	Gly	Ile	Val	Thr	Arg	Val	Ser	Glu	Val	Lys	Pro	Lys	Met
		210					215					220			
Val	Val	Ala	Thr	Tyr	Thr	Cys	Asp	Gln	Cys	Gly	Ala	Glu	Thr	Tyr	Gln
225						230					235				240
Pro	Ile	Gln	Ser	Pro	Thr	Phe	Met	Pro	Leu	Ile	Met	Cys	Pro	Ser	Gln
				245					250					255	
Glu	Cys	Gln	Thr	Asn	Arg	Ser	Gly	Gly	Arg	Leu	Tyr	Leu	Gln	Thr	Arg
			260					265					270		
Gly	Ser	Arg	Phe	Ile	Lys	Phe	Gln	Glu	Met	Lys	Met	Gln	Glu	His	Ser
		275					280					285			
Asp	Gln	Val	Pro	Val	Gly	Asn	Ile	Pro	Arg	Ser	Ile	Thr	Val	Leu	Val
		290					295					300			
Glu	Gly	Glu	Asn	Thr	Arg	Ile	Ala	Gln	Pro	Gly	Asp	His	Val	Ser	Val
305						310					315				320
Thr	Gly	Ile	Phe	Leu	Pro	Ile	Leu	Arg	Thr	Gly	Phe	Arg	Gln	Val	Val
			325						330				335		
Gln	Gly	Leu	Leu	Ser	Glu	Thr	Tyr	Leu	Glu	Ala	His	Arg	Ile	Val	Lys
			340					345					350		
Met	Asn	Lys	Ser	Glu	Asp	Asp	Glu	Ser	Gly	Ala	Gly	Glu	Leu	Thr	Arg

1443

355	360	365
Glu Glu Leu Arg Gln Ile Ala	Glu Glu Asp Phe Tyr Glu Lys Leu Ala	
370	375	380
Ala Ser Ile Ala Pro Glu Ile Tyr Gly His Glu Asp Val Lys Lys Ala		
385	390	395 400
Leu Leu Leu Leu Leu Val Gly Gly Val Asp Gln Ser Pro Arg Gly Met		
405	410	415
Lys Ile Arg Gly Asn Ile Asn Ile Cys Leu Met Gly Asp Pro Gly Val		
420	425	430
Ala Lys Ser Gln Leu Leu Ser Tyr Ile Asp Arg Leu Ala Pro Arg Ser		
435	440	445
Gln Tyr Thr Thr Gly Arg Gly Ser Ser Gly Val Gly Leu Thr Ala Ala		
450	455	460
Val Leu Arg Asp Ser Val Ser Gly Glu Leu Thr Leu Glu Gly Gly Ala		
465	470	475 480
Leu Val Leu Ala Asp Gln Gly Val Cys Cys Ile Asp Glu Phe Asp Lys		
485	490	495
Met Ala Glu Ala Asp Arg Thr Ala Ile His Glu Val Met Glu Gln Gln		
500	505	510
Thr Ile Ser Ile Ala Lys Ala Gly Ile Leu Thr Thr Leu Asn Ala Arg		
515	520	525
Cys Ser Ile Leu Ala Ala Ala Asn Pro Ala Tyr Gly Arg Tyr Asn Pro		
530	535	540
Arg Arg Ser Leu Glu Gln Asn Ile Gln Leu Pro Ala Ala Leu Leu Ser		
545	550	555 560
Arg Phe Asp Leu Leu Trp Leu Ile Gln Asp Arg Pro Asp Arg Asp Asn		
565	570	575
Asp Leu Arg Leu Ala Gln His Ile Thr Tyr Val His Gln His Ser Arg		
580	585	590
Gln Pro Pro Ser Gln Phe Glu Pro Leu Asp Met Lys Leu Met Arg Arg		
595	600	605
Tyr Ile Ala Met Cys Arg Glu Lys Gln Pro Met Val Pro Glu Ser Leu		
610	615	620
Ala Asp Tyr Ile Thr Ala Ala Tyr Val Glu Met Arg Arg Glu Ala Trp		

1444

625                      630                      635                      640  
 Ala Ser Lys Asp Ala Thr Tyr Thr Ser Ala Arg Thr Leu Leu Ala Ile  
                                 645                      650                      655  
 Leu Arg Leu Ser Thr Ala Leu Ala Arg Leu Arg Met Val Asp Val Val  
                                 660                      665                      670  
 Glu Lys Glu Asp Val Asn Glu Ala Ile Arg Leu Met Glu Met Ser Lys  
                                 675                      680                      685  
 Asp Ser Leu Leu Gly Asp Lys Gly Gln Thr Ala Arg Thr Gln Arg Pro  
                                 690                      695                      700  
 Ala Asp Val Ile Phe Ala Thr Val Arg Glu Leu Val Ser Gly Gly Arg  
 705                                  710                      715                      720  
 Ser Val Arg Phe Ser Glu Ala Glu Gln Arg Cys Val Ser Arg Gly Phe  
                                 725                      730                      735  
 Thr Pro Ala Gln Phe Gln Ala Ala Leu Asp Glu Tyr Glu Glu Leu Asn  
                                 740                      745                      750  
 Val Trp Gln Val Asn Ala Ser Arg Thr Arg Ile Thr Phe Val  
                                 755                      760                      765

&lt;210&gt; 1383

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1383

Phe Arg Pro Gly Ser Pro Arg Gln Pro Arg Ala Gln Pro Ile Ser Ala  
   1                      5                      10                      15  
 Pro Asp Cys Thr Arg Ala Met Val Gly Arg Arg Ala Leu Ile Val Leu  
                                 20                      25                      30  
 Ala His Ser Glu Arg Thr Ser Phe Asn Tyr Ala Met Lys Glu Ala Ala  
                                 35                      40                      45  
 Ala Ala Ala Leu Lys Lys Lys Gly Trp Glu Val Val Glu Ser Asp Leu  
                                 50                      55                      60  
 Tyr Ala Met Asn Phe Asn Pro Ile Ile Ser Arg Lys Asp Ile Thr Gly  
   65                                  70                      75                      80  
 Lys Leu Lys Asp Pro Ala Asn Phe Gln Tyr Pro Ala Glu Ser Val Leu  
                                 85                      90                      95

1445

Ala Tyr Lys Glu Gly His Leu Ser Pro Asp Ile Val Ala Glu Gln Lys  
                   100                                  105                                  110  
 Lys Leu Glu Ala Ala Asp Leu Val Ile Phe Gln Phe Pro Leu Gln Trp  
                   115                                  120                                  125  
 Phe Gly Val Pro Ala Ile Leu Lys Gly Trp Phe Glu Arg Val Phe Ile  
                   130                                  135                                  140  
 Gly Glu Phe Ala Tyr Thr Tyr Ala Ala Met Tyr Asp Lys Gly Pro Phe  
                   145                                  150                                  155                                  160  
 Arg Ser Lys Lys Ala Val Leu Ser Ile Thr Thr Gly Gly Ser Gly Ser  
                   165                                  170                                  175  
 Met Tyr Ser Leu Gln Gly Ile His Gly Asp Met Asn Val Ile Leu Trp  
                   180                                  185                                  190  
 Pro Ile Gln Ser Gly Ile Leu His Phe Cys Gly Phe Gln Val Leu Glu  
                   195                                  200                                  205  
 Pro Gln Leu Thr Tyr Ser Ile Gly His Thr Pro Ala Asp Ala Arg Ile  
                   210                                  215                                  220  
 Gln Ile Leu Glu Gly Trp Lys Lys Arg Leu Glu Asn Ile Trp Asp Glu  
                   225                                  230                                  235                                  240  
 Thr Pro Leu Tyr Phe Ala Pro Ser Ser Leu Phe Asp Leu Asn Phe Gln  
                   245                                  250                                  255  
 Ala Gly Phe Leu Met Lys Lys Glu Val Gln Asp Glu Glu Lys Asn Lys  
                   260                                  265                                  270  
 Lys Phe Gly Leu Ser Val Gly His His Leu Gly Lys Ser Ile Pro Thr  
                   275                                  280                                  285  
 Asp Asn Gln Ile Lys Ala Arg Lys  
                   290                                  295

&lt;210&gt; 1384

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1384

Asp Pro Arg Thr Met Asn Leu Ala Ile Ser Ile Ala Leu Leu Leu Thr  
   1                                  5                                  10                                  15

1446

Val Leu Gln Val Ser Arg Gly Gln Lys Val Thr Ser Leu Thr Ala Cys  
                   20                                  25                                  30  
 Leu Val Asp Gln Ser Leu Arg Leu Asp Cys Arg His Glu Asn Thr Ser  
                   35                                  40                                  45  
 Ser Ser Pro Ile Gln Tyr Glu Phe Ser Leu Thr Arg Glu Thr Lys Lys  
                   50                                  55                                  60  
 His Val Leu Phe Gly Thr Val Gly Val Pro Glu His Thr Tyr Arg Ser  
                   65                                  70                                  75                                  80  
 Arg Thr Asn Phe Thr Ser Lys Tyr Asn Met Lys Val Leu Tyr Leu Ser  
                                   85                                  90                                  95  
 Ala Phe Thr Ser Lys Asp Glu Gly Thr Tyr Thr Cys Ala Leu His His  
                   100                                  105                                  110  
 Ser Gly His Ser Pro Pro Ile Ser Ser Gln Asn Val Thr Val Leu Arg  
                   115                                  120                                  125  
 Asp Lys Leu Val Lys Cys Glu Gly Ile Ser Leu Leu Ala Gln Asn Thr  
                   130                                  135                                  140  
 Ser Trp Leu Leu Leu Leu Leu Leu Ser Leu Ser Leu Leu Gln Ala Thr  
                   145                                  150                                  155                                  160  
 Asp Phe Met Ser Leu  
                                   165

&lt;210&gt; 1385

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1385

His Glu Arg Thr Pro Ser Arg Pro Gln Pro Asp Thr Pro Arg Gly Pro  
           1                                  5                                  10                                  15  
 Pro Val Ser Arg Gly Cys Ser Pro Arg His Gly Thr Gly Pro Arg Leu  
                   20                                  25                                  30  
 Thr Met Ala Ala Ala Arg His Ser Thr Leu Asp Phe Met Leu Gly Ala  
                   35                                  40                                  45  
 Lys Ala Asp Gly Glu Thr Ile Leu Lys Gly Leu Gln Ser Ile Phe Gln  
                   50                                  55                                  60  
 Glu Gln Gly Met Ala Glu Ser Val His Thr Trp Gln Asp His Gly Tyr

1447

65		70		75		80
Leu Ala Thr Tyr	Thr Asn Lys Asn Gly Ser Phe Ala Asn Leu Arg Ile					
	85		90		95	
Tyr Pro His Gly	Leu Val Leu Leu Asp Leu Gln Ser Tyr Asp Gly Asp					
	100		105		110	
Ala Gln Gly Lys	Glu Glu Ile Asp Ser Ile Leu Asn Lys Val Glu Glu					
	115		120		125	
Arg Met Lys Glu	Leu Ser Gln Asp Ser Thr Gly Arg Val Lys Arg Leu					
	130		135		140	
Pro Pro Ile Val	Arg Gly Gly Ala Ile Asp Arg Tyr Trp Pro Thr Ala					
	145		150		155	160
Asp Gly Arg Leu	Val Glu Tyr Asp Ile Asp Glu Val Val Tyr Asp Glu					
	165		170		175	
Asp Ser Pro Tyr	Gln Asn Ile Lys Ile Leu His Ser Lys Gln Phe Gly					
	180		185		190	
Asn Ile Leu Ile	Leu Ser Gly Asp Val Asn Leu Ala Glu Ser Asp Leu					
	195		200		205	
Ala Tyr Thr Arg	Ala Ile Met Gly Ser Gly Lys Glu Asp Tyr Thr Gly					
	210		215		220	
Lys Asp Val Leu	Ile Leu Gly Gly Gly Asp Gly Gly Ile Leu Cys Glu					
	225		230		235	240
Ile Val Lys Leu	Lys Pro Lys Met Val Thr Met Val Glu Ile Asp Gln					
	245		250		255	
Met Val Ile Asp	Gly Cys Lys Lys Tyr Met Arg Lys Thr Cys Gly Asp					
	260		265		270	
Val Leu Asp Asn	Leu Lys Gly Asp Cys Tyr Gln Val Leu Ile Glu Asp					
	275		280		285	
Cys Ile Pro Val	Leu Lys Arg Tyr Ala Lys Glu Gly Arg Glu Phe Asp					
	290		295		300	
Tyr Val Ile Asn	Asp Leu Thr Ala Val Pro Ile Ser Thr Ser Pro Glu					
	305		310		315	320
Glu Asp Ser Thr	Trp Glu Phe Leu Arg Leu Ile Leu Asp Leu Ser Met					
	325		330		335	
Lys Val Leu Lys	Gln Asp Gly Lys Tyr Phe Thr Gln Gly Asn Cys Val					

1448

340                      345                      350  
 Asn Leu Thr Glu Ala Leu Ser Leu Tyr Glu Glu Gln Leu Gly Arg Leu  
           355                      360                      365  
 Tyr Cys Pro Val Glu Phe Ser Lys Glu Ile Val Cys Val Pro Ser Tyr  
           370                      375                      380  
 Leu Glu Leu Trp Val Phe Tyr Thr Val Trp Lys Lys Ala Lys Pro  
 385                      390                      395

&lt;210&gt; 1386

&lt;211&gt; 287

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1386

Phe Asp Cys Arg Asp Val Ala Phe Thr Val Gly Glu Gly Glu Asp His  
   1                      5                      10                      15  
 Asp Ile Pro Ile Gly Ile Asp Lys Ala Leu Glu Lys Met Gln Arg Glu  
           20                      25                      30  
 Glu Gln Cys Ile Leu Tyr Leu Gly Pro Arg Tyr Gly Phe Gly Glu Ala  
           35                      40                      45  
 Gly Lys Pro Lys Phe Gly Ile Glu Pro Asn Ala Glu Leu Ile Tyr Glu  
           50                      55                      60  
 Val Thr Leu Lys Ser Phe Glu Lys Ala Lys Glu Ser Trp Glu Met Asp  
           65                      70                      75                      80  
 Thr Lys Glu Lys Leu Glu Gln Ala Ala Ile Val Lys Glu Lys Gly Thr  
           85                      90                      95  
 Val Tyr Phe Lys Gly Gly Lys Tyr Met Gln Ala Val Ile Gln Tyr Gly  
           100                      105                      110  
 Lys Ile Val Ser Trp Leu Glu Met Glu Tyr Gly Leu Ser Glu Lys Glu  
           115                      120                      125  
 Ser Lys Ala Ser Glu Ser Phe Leu Leu Ala Ala Phe Leu Asn Leu Ala  
           130                      135                      140  
 Met Cys Tyr Leu Lys Leu Arg Glu Tyr Thr Lys Ala Val Glu Cys Cys  
 145                      150                      155                      160  
 Asp Lys Ala Leu Gly Leu Asp Ser Ala Asn Glu Lys Gly Leu Tyr Arg  
           165                      170                      175



1449

Arg Gly Glu Ala Gln Leu Leu Met Asn Glu Phe Glu Ser Ala Lys Gly  
 180 185 190

Asp Phe Glu Lys Val Leu Glu Val Asn Pro Gln Asn Lys Ala Ala Arg  
 195 200 205

Leu Gln Ile Ser Met Cys Gln Lys Lys Ala Lys Glu His Asn Glu Arg  
 210 215 220

Asp Arg Arg Tyr Thr Pro Thr Cys Ser Arg Ser Leu Gln Ser Arg Met  
 225 230 235 240

Pro Arg Lys Arg Pro Ile Lys Gln Trp Ala Arg Arg Leu Gln Lys Gly  
 245 250 255

Ser Leu Met Lys Lys Glu Gln Thr Val Lys Gln Trp Lys Lys Arg Asn  
 260 265 270

Leu Arg Ala Thr Tyr Asp Ala Thr Pro Arg Arg Glu Glu Ser Gln  
 275 280 285

<210> 1387

<211> 206

<212> PRT

<213> Homo sapiens

<400> 1387

Arg Leu Pro Ile Arg Gln Ser Ala Ala Asp Gly Leu Arg Ala Arg Pro  
 1 5 10 15

Leu Gly Ser Asn Thr Ala Pro Ala Leu Arg Val Met Val Gln Ala Trp  
 20 25 30

Tyr Met Asp Asp Ala Pro Gly Asp Pro Arg Gln Pro His Arg Pro Asp  
 35 40 45

Pro Gly Arg Pro Val Gly Leu Glu Gln Leu Arg Arg Leu Gly Val Leu  
 50 55 60

Tyr Trp Lys Leu Asp Ala Asp Lys Tyr Glu Asn Asp Pro Glu Leu Glu  
 65 70 75 80

Lys Ile Arg Arg Glu Arg Asn Tyr Ser Trp Met Asp Ile Ile Thr Ile  
 85 90 95

Cys Lys Asp Lys Leu Pro Asn Tyr Glu Glu Lys Ile Lys Met Phe Tyr  
 100 105 110

1450

Glu Glu His Leu His Leu Asp Asp Glu Ile Arg Tyr Ile Leu Asp Gly  
 115 120 125  
 Ser Gly Tyr Phe Asp Val Arg Asp Lys Glu Asp Gln Trp Ile Arg Ile  
 130 135 140  
 Phe Met Glu Lys Gly Asp Met Val Thr Leu Pro Ala Gly Ile Tyr His  
 145 150 155 160  
 Arg Phe Thr Val Asp Glu Lys Asn Tyr Thr Lys Ala Met Arg Leu Phe  
 165 170 175  
 Val Gly Glu Pro Val Trp Thr Ala Tyr Asn Arg Pro Ala Asp His Phe  
 180 185 190  
 Glu Ala Arg Gly Gln Tyr Val Lys Phe Leu Ala Gln Thr Ala  
 195 200 205

&lt;210&gt; 1388

&lt;211&gt; 394

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1388

Phe His Xaa Ala Ala His Tyr Ser Leu Pro Asp Gly Arg His Gly Arg  
 1 5 10 15  
 Leu Asp Ser Pro Thr Phe His Leu Thr Leu His Tyr Pro Thr Glu His  
 20 25 30  
 Val Gln Phe Trp Val Gly Ser Pro Ser Thr Pro Ala Gly Trp Val Arg  
 35 40 45  
 Glu Gly Asp Thr Val Gln Leu Leu Cys Arg Gly Asp Gly Ser Pro Ser  
 50 55 60  
 Pro Glu Tyr Thr Leu Phe Arg Leu Gln Asp Glu Gln Glu Glu Val Leu  
 65 70 75 80  
 Asn Val Asn Leu Glu Gly Asn Leu Thr Leu Glu Gly Val Thr Arg Gly  
 85 90 95  
 Gln Ser Gly Thr Tyr Gly Cys Arg Val Glu Asp Tyr Asp Ala Ala Asp  
 100 105 110

1451

Asp Val Gln Leu Ser Lys Thr Leu Glu Leu Arg Val Ala Tyr Leu Asp  
 115 120 125

Pro Leu Glu Leu Ser Glu Gly Lys Val Leu Ser Leu Pro Leu Asn Ser  
 130 135 140

Ser Ala Val Val Asn Cys Ser Val His Gly Leu Pro Thr Pro Ala Leu  
 145 150 155 160

Arg Trp Thr Lys Asp Ser Thr Pro Leu Gly Asp Gly Pro Met Leu Ser  
 165 170 175

Leu Ser Ser Ile Thr Phe Asp Ser Asn Gly Thr Tyr Val Cys Glu Ala  
 180 185 190

Ser Leu Pro Thr Val Pro Val Leu Ser Arg Thr Gln Asn Phe Thr Leu  
 195 200 205

Leu Val Gln Gly Ser Pro Glu Leu Lys Thr Ala Glu Ile Glu Pro Lys  
 210 215 220

Ala Asp Gly Ser Trp Arg Glu Gly Asp Glu Val Thr Leu Ile Cys Ser  
 225 230 235 240

Ala Arg Gly His Pro Asp Pro Lys Leu Ser Trp Ser Gln Leu Gly Gly  
 245 250 255

Ser Pro Ala Glu Pro Ile Pro Gly Arg Gln Gly Trp Val Ser Ser Ser  
 260 265 270

Leu Thr Leu Lys Val Thr Ser Ala Leu Ser Arg Asp Gly Ile Ser Cys  
 275 280 285

Glu Ala Ser Asn Pro His Gly Asn Lys Arg His Val Phe His Phe Gly  
 290 295 300

Thr Val Ser Pro Gln Thr Ser Gln Ala Gly Val Ala Val Met Ala Val  
 305 310 315 320

Ala Val Ser Val Gly Leu Leu Leu Leu Val Val Ala Val Phe Tyr Cys  
 325 330 335

Val Arg Arg Lys Gly Gly Pro Cys Cys Arg Gln Arg Arg Glu Lys Gly  
 340 345 350

Ala Pro Pro Pro Gly Glu Pro Gly Leu Ser His Ser Gly Ser Glu Gln  
 355 360 365

Pro Glu Gln Thr Gly Leu Leu Met Gly Gly Ala Ser Gly Gly Ala Arg  
 370 375 380

1452

Gly Gly Ser Gly Gly Phe Gly Asp Glu Cys  
385 390

<210> 1389

<211> 264

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1389

Val Gly Cys Arg Trp Ser Arg Val Gly Pro Gln Asn Pro Arg Val Xaa  
1 5 10 15

Leu Pro Pro Pro Thr Leu Ala Met Phe Leu Thr Arg Ser Glu Tyr Asp  
20 25 30

Arg Gly Val Asn Thr Phe Ser Pro Glu Gly Arg Leu Phe Gln Val Glu  
35 40 45

Tyr Ala Ile Glu Ala Ile Lys Leu Gly Ser Thr Ala Ile Gly Ile Gln  
50 55 60

Thr Ser Glu Gly Val Cys Leu Ala Val Glu Lys Arg Ile Thr Ser Pro  
65 70 75 80

Leu Met Glu Pro Ser Ser Ile Glu Lys Ile Val Glu Ile Asp Ala His  
85 90 95

Ile Gly Cys Ala Met Ser Gly Leu Ile Ala Asp Ala Lys Thr Leu Ile  
100 105 110

Asp Lys Ala Arg Val Glu Thr Gln Asn His Trp Phe Thr Tyr Asn Glu  
115 120 125

Thr Met Thr Val Glu Ser Val Thr Gln Ala Val Ser Asn Leu Ala Leu  
130 135 140

Gln Phe Gly Glu Glu Asp Ala Asp Pro Gly Ala Met Ser Arg Pro Phe  
145 150 155 160

Gly Val Ala Leu Leu Phe Gly Gly Val Asp Glu Lys Gly Pro Gln Leu  
165 170 175

Phe His Met Asp Pro Ser Gly Thr Phe Val Gln Cys Asp Ala Arg Ala

1453

180	185	190
Ile Gly Ser Ala Ser Glu Gly Ala Gln Ser Ser Leu Gln Glu Val Tyr		
195	200	205
His Lys Ser Met Thr Leu Lys Glu Ala Ile Lys Ser Ser Leu Ile Ile		
210	215	220
Leu Lys Gln Val Met Glu Glu Lys Leu Asn Ala Thr Asn Ile Glu Leu		
225	230	240
Ala Thr Val Gln Pro Gly Gln Asn Phe His Met Phe Thr Lys Glu Glu		
245	250	255
Leu Glu Glu Val Ile Lys Asp Ile		
260		

&lt;210&gt; 1390

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1390

Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr Ser Gly			
1	5	10	15
Ser Pro Gly Leu Phe Gly Leu Ser Ala Arg Arg Leu Leu Ala Ala Ala			
20	25	30	
Ala Thr Arg Gly Leu Pro Ala Ala Arg Val Arg Trp Glu Ser Ser Phe			
35	40	45	
Ser Arg Thr Val Val Ala Pro Ser Ala Val Ala Gly Lys Arg Pro Pro			
50	55	60	
Glu Pro Thr Thr Pro Trp Gln Glu Asp Pro Glu Pro Glu Asp Glu Asn			
65	70	75	80
Leu Tyr Glu Lys Asn Pro Asp Ser His Gly Tyr Asp Lys Asp Pro Val			
85	90	95	
Leu Asp Val Trp Asn Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile			
100	105	110	
Ile Leu Val Leu Gly Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg			
115	120	125	
Cys Thr Gly Cys Pro Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg			
130	135	140	

1454

Arg Glu Ala Glu Arg Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro  
 145 150 155 160

Ile Met Glu Ser Asn Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu  
 165 170 175

Asp Glu

<210> 1391

<211> 133

<212> PRT

<213> Homo sapiens

<400> 1391

Val Ile Ile Thr Ser Ile Asn Gln Lys Ile Phe His Pro Leu Arg Ala  
 1 5 10 15

Leu Lys Leu Ser Thr Ser Ala Thr Phe Leu Ile Leu Val Leu Gly Gly  
 20 25 30

His Val Tyr Gly Leu Phe Asn Phe His Val Pro Tyr Cys Pro Leu Pro  
 35 40 45

Ala Val Ala Lys Ala Ser Cys Phe Ser Pro Thr Glu Glu Thr Val Leu  
 50 55 60

Cys His Asp Asp Arg Ala Leu Leu Gly Leu Val Phe Leu Val Phe Pro  
 65 70 75 80

Phe Trp Gln Cys Gly Leu Gln Glu Leu Asp Val Tyr Ala Gln Gly Ile  
 85 90 95

Glu Phe Thr Leu Lys Leu Gly Asn Gly Val Phe Asn Leu Cys Ser Cys  
 100 105 110

Leu Phe Ile Leu Leu Phe Ile Phe Cys His Pro Ala Leu Tyr Trp Ala  
 115 120 125

Asn Asn Glu Ile Lys  
 130

<210> 1392

<211> 401

<212> PRT

<213> Homo sapiens

1455

&lt;400&gt; 1392

Asn	Thr	Val	Leu	Lys	Lys	Met	Asp	Glu	Glu	Pro	Glu	Arg	Thr	Lys	Arg	1	5	10	15
Trp	Glu	Gly	Gly	Tyr	Glu	Arg	Thr	Trp	Glu	Ile	Leu	Lys	Glu	Asp	Glu	20	25	30	
Ser	Gly	Ser	Leu	Lys	Ala	Thr	Ile	Glu	Asp	Ile	Leu	Phe	Lys	Ala	Lys	35	40	45	
Arg	Lys	Arg	Val	Phe	Glu	His	His	Gly	Gln	Val	Arg	Leu	Gly	Met	Met	50	55	60	
Arg	His	Leu	Tyr	Val	Val	Val	Asp	Gly	Ser	Arg	Thr	Met	Glu	Asp	Gln	65	70	75	80
Asp	Leu	Lys	Pro	Asn	Arg	Leu	Thr	Cys	Thr	Leu	Lys	Leu	Leu	Glu	Tyr	85	90	95	
Phe	Val	Glu	Glu	Tyr	Phe	Asp	Gln	Asn	Pro	Ile	Ser	Gln	Ile	Gly	Ile	100	105	110	
Ile	Val	Thr	Lys	Ser	Lys	Arg	Ala	Glu	Lys	Leu	Thr	Glu	Leu	Ser	Gly	115	120	125	
Asn	Pro	Arg	Lys	His	Ile	Thr	Ser	Leu	Lys	Lys	Ala	Val	Asp	Met	Thr	130	135	140	
Cys	His	Gly	Glu	Pro	Ser	Leu	Tyr	Asn	Ser	Leu	Ser	Ile	Ala	Met	Gln	145	150	155	160
Thr	Leu	Lys	His	Met	Pro	Gly	His	Thr	Ser	Arg	Glu	Val	Leu	Ile	Ile	165	170	175	
Phe	Ser	Ser	Leu	Thr	Thr	Cys	Asp	Pro	Ser	Asn	Ile	Tyr	Asp	Leu	Ile	180	185	190	
Lys	Thr	Leu	Lys	Ala	Ala	Lys	Ile	Arg	Val	Ser	Val	Ile	Gly	Leu	Ser	195	200	205	
Ala	Glu	Val	Arg	Val	Cys	Thr	Val	Leu	Ala	Arg	Glu	Thr	Gly	Gly	Thr	210	215	220	
Tyr	His	Val	Ile	Leu	Asp	Glu	Ser	His	Tyr	Lys	Glu	Leu	Leu	Thr	His	225	230	235	240
His	Val	Ser	Pro	Pro	Pro	Ala	Ser	Ser	Ser	Ser	Glu	Cys	Ser	Leu	Ile	245	250	255	
Arg	Met	Gly	Phe	Pro	Gln	His	Thr	Ile	Ala	Ser	Leu	Ser	Asp	Gln	Asp				

1456

260	265	270
Ala Lys Pro Ser Phe Ser Met	Ala His Leu Asp Gly Asn Thr Glu Pro	
275	280	285
Gly Leu Thr Leu Gly Gly Tyr Phe Cys Pro Gln Cys Arg Ala Lys Tyr		
290	295	300
Cys Glu Leu Pro Val Glu Cys Lys Ile Cys Gly Leu Thr Leu Val Ser		
305	310	315
Ala Pro His Leu Ala Arg Ser Tyr His His Leu Phe Pro Leu Asp Ala		
325	330	335
Phe Gln Glu Ile Pro Leu Glu Glu Tyr Asn Gly Glu Arg Phe Cys Tyr		
340	345	350
Gly Cys Gln Gly Glu Leu Lys Asp Gln His Val Tyr Val Cys Ala Val		
355	360	365
Cys Gln Asn Val Phe Cys Val Asp Cys Asp Val Phe Val His Asp Ser		
370	375	380
Leu His Cys Cys Pro Gly Cys Ile His Lys Ile Pro Ala Pro Ser Gly		
385	390	395
		400
Val		

&lt;210&gt; 1393

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1393

Pro Glu Gly Leu Pro Arg Phe Asn Asn Asn Phe Met Ala Pro Gly Ser
1 5 10 15
Ala Ser Ser Pro Ser Pro Ser Phe Pro Ala Ser Arg Pro Trp Ala Ala
20 25 30
Val Gly Thr Met Ala Ala Ala Ala Ala Ala Gly Pro Ser Pro Gly Ser
35 40 45
Gly Pro Gly Asp Ser Pro Glu Gly Pro Glu Gly Glu Ala Pro Glu Arg
50 55 60
Arg Arg Lys Ala His Gly Met Leu Lys Leu Tyr Tyr Gly Leu Ser Glu
65 70 75 80



1457

Gly Glu Ala Ala Gly Arg Pro Ala Gly Pro Asp Pro Leu Asp Pro Thr  
                             85                            90                            95  
 Asp Leu Asn Gly Ala His Phe Asp Pro Glu Val Tyr Leu Asp Lys Leu  
                             100                            105                            110  
 Arg Arg Glu Cys Pro Leu Ala Gln Leu Met Asp Ser Glu Thr Asp Met  
                             115                            120                            125  
 Val Arg Gln Ile Arg Ala Leu Asp Ser Asp Met Gln Thr Leu Val Tyr  
                             130                            135                            140  
 Glu Asn Tyr Asn Lys Phe Ile Ser Ala Thr Asp Thr Ile Arg Lys Met  
 145                            150                            155                            160  
 Lys Asn Asp Phe Arg Lys Met Glu Asp Glu Met Asp Arg Leu Ala Thr  
                             165                            170                            175  
 Asn Met Ala Val Ile Thr Asp Phe Ser Ala Arg Ile Ser Ala Thr Leu  
                             180                            185                            190  
 Gln Asp Arg His Glu Arg Ile Thr Lys Leu Ala Gly Val His Ala Leu  
                             195                            200                            205  
 Leu Arg Lys Leu Gln Phe Leu Phe Glu Leu Pro Ser Arg Leu Thr Lys  
                             210                            215                            220  
 Cys Val Glu Leu Gly Ala Tyr Gly Gln Ala Val Arg Tyr Gln Gly Arg  
 225                            230                            235                            240  
 Ala Gln Ala Val Leu Gln Gln Tyr Gln His Leu Pro Ser Phe Arg Ala  
                             245                            250                            255  
 Ile Gln Asp Asp Cys Gln Val Ile Thr Ala Arg Leu Ala Gln Gln Leu  
                             260                            265                            270  
 Arg Gln Arg Phe Arg Glu Gly Gly Ser Gly Ala Pro Glu Gln Ala Glu  
                             275                            280                            285  
 Cys Val Glu Leu Leu Leu Ala Leu Gly Glu Pro Ala Glu Glu Leu Cys  
                             290                            295                            300  
 Glu Glu Phe Trp Arg Thr Pro Ala Ala Gly Trp Arg Arg Ser  
 305                            310                            315

&lt;210&gt; 1394

&lt;211&gt; 1285

&lt;212&gt; PRT

1458

&lt;213&gt; Homo sapiens

&lt;400&gt; 1394

Phe Ser Phe Pro Leu Ser Ser Glu Pro Phe Gln Gly Ser Tyr Lys Val  
 1 5 10 15  
 Val Val Gln Lys Lys Ser Gly Gly Arg Thr Glu His Pro Phe Thr Val  
 20 25 30  
 Glu Glu Phe Val Leu Pro Lys Phe Glu Val Gln Val Thr Val Pro Lys  
 35 40 45  
 Ile Ile Thr Ile Leu Glu Glu Glu Met Asn Val Ser Val Cys Gly Leu  
 50 55 60  
 Tyr Thr Tyr Gly Lys Pro Val Pro Gly His Val Thr Val Ser Ile Cys  
 65 70 75 80  
 Arg Lys Tyr Ser Asp Ala Ser Asp Cys His Gly Glu Asp Ser Gln Ala  
 85 90 95  
 Phe Cys Glu Lys Phe Ser Gly Gln Leu Asn Ser His Gly Cys Phe Tyr  
 100 105 110  
 Gln Gln Val Lys Thr Lys Val Phe Gln Leu Lys Arg Lys Glu Tyr Glu  
 115 120 125  
 Met Lys Leu His Thr Glu Ala Gln Ile Gln Glu Glu Gly Thr Val Val  
 130 135 140  
 Glu Leu Thr Gly Arg Gln Ser Ser Glu Ile Thr Arg Thr Ile Thr Lys  
 145 150 155 160  
 Leu Ser Phe Val Lys Val Asp Ser His Phe Arg Gln Gly Ile Pro Phe  
 165 170 175  
 Phe Gly Gln Val Arg Leu Val Asp Gly Lys Gly Val Pro Ile Pro Asn  
 180 185 190  
 Lys Val Ile Phe Ile Arg Gly Asn Glu Ala Asn Tyr Tyr Ser Asn Ala  
 195 200 205  
 Thr Thr Asp Glu His Gly Leu Val Gln Phe Ser Ile Asn Thr Thr Asn  
 210 215 220  
 Val Met Gly Thr Ser Leu Thr Val Arg Val Asn Tyr Lys Asp Arg Ser  
 225 230 235 240  
 Pro Cys Tyr Gly Tyr Gln Trp Val Ser Glu Glu His Glu Glu Ala His  
 245 250 255

1459

His Thr Ala Tyr Leu Val Phe Ser Pro Ser Lys Ser Phe Val His Leu  
 260 265 270

Glu Pro Met Ser His Glu Leu Pro Cys Gly His Thr Gln Thr Val Gln  
 275 280 285

Ala His Tyr Ile Leu Asn Gly Gly Thr Leu Leu Gly Leu Lys Lys Leu  
 290 295 300

Ser Phe Tyr Tyr Leu Ile Met Ala Lys Gly Gly Ile Val Arg Thr Gly  
 305 310 315 320

Thr His Gly Leu Leu Val Lys Gln Glu Asp Met Lys Gly His Phe Ser  
 325 330 335

Ile Ser Ile Pro Val Lys Ser Asp Ile Ala Pro Val Ala Arg Leu Leu  
 340 345 350

Ile Tyr Ala Val Leu Pro Thr Gly Asp Val Ile Gly Asp Ser Ala Lys  
 355 360 365

Tyr Asp Val Glu Asn Cys Leu Ala Asn Lys Val Asp Leu Ser Phe Ser  
 370 375 380

Pro Ser Gln Ser Leu Pro Ala Ser His Ala His Leu Arg Val Thr Ala  
 385 390 395 400

Ala Pro Gln Ser Val Cys Ala Leu Arg Ala Val Asp Gln Ser Val Leu  
 405 410 415

Leu Met Lys Pro Asp Ala Glu Leu Ser Ala Ser Ser Val Tyr Asn Leu  
 420 425 430

Leu Pro Glu Lys Asp Leu Thr Gly Phe Pro Gly Pro Leu Asn Asp Gln  
 435 440 445

Asp Asp Glu Asp Cys Ile Asn Arg His Asn Val Tyr Ile Asn Gly Ile  
 450 455 460

Thr Tyr Thr Pro Val Ser Ser Thr Asn Glu Lys Asp Met Tyr Ser Phe  
 465 470 475 480

Leu Glu Asp Met Gly Leu Lys Ala Phe Thr Asn Ser Lys Ile Arg Lys  
 485 490 495

Pro Lys Met Cys Pro Gln Leu Gln Gln Tyr Glu Met His Gly Pro Glu  
 500 505 510

Gly Leu Arg Val Gly Phe Tyr Glu Ser Asp Val Met Gly Arg Gly His  
 515 520 525

1460

Ala Arg Leu Val His Val Glu Glu Pro His Thr Glu Thr Val Arg Lys			
530	535	540	
Tyr Phe Pro Glu Thr Trp Ile Trp Asp Leu Val Val Val Asn Ser Ala			
545	550	555	560
Gly Val Ala Glu Val Gly Val Thr Val Pro Asp Thr Ile Thr Glu Trp			
	565	570	575
Lys Ala Gly Ala Phe Cys Leu Ser Glu Asp Ala Gly Leu Gly Ile Ser			
	580	585	590
Ser Thr Ala Ser Leu Arg Ala Phe Gln Pro Phe Phe Val Glu Leu Thr			
	595	600	605
Met Pro Tyr Ser Val Ile Arg Gly Glu Ala Phe Thr Leu Lys Ala Thr			
	610	615	620
Val Leu Asn Tyr Leu Pro Lys Cys Ile Arg Val Ser Val Gln Leu Glu			
	625	630	635
Ala Ser Pro Ala Phe Leu Ala Val Pro Val Glu Lys Glu Gln Ala Pro			
	645	650	655
His Cys Ile Cys Ala Asn Gly Arg Gln Thr Val Ser Trp Ala Val Thr			
	660	665	670
Pro Lys Ser Leu Gly Asn Val Asn Phe Thr Val Ser Ala Glu Ala Leu			
	675	680	685
Glu Ser Gln Glu Leu Cys Gly Thr Glu Val Pro Ser Val Pro Glu His			
	690	695	700
Gly Arg Lys Asp Thr Val Ile Lys Pro Leu Leu Val Glu Pro Glu Gly			
	705	710	715
Leu Glu Lys Glu Thr Thr Phe Asn Ser Leu Leu Cys Pro Ser Gly Gly			
	725	730	735
Glu Val Ser Glu Glu Leu Ser Leu Lys Leu Pro Pro Asn Val Val Glu			
	740	745	750
Glu Ser Ala Arg Ala Ser Val Ser Val Leu Gly Asp Ile Leu Gly Ser			
	755	760	765
Ala Met Gln Asn Thr Gln Asn Leu Leu Gln Met Pro Tyr Gly Cys Gly			
	770	775	780
Glu Gln Asn Met Val Leu Phe Ala Pro Asn Ile Tyr Val Leu Asp Tyr			
	785	790	795
			800

1461

Leu Asn Glu Thr Gln Gln Leu Thr Pro Glu Ile Lys Ser Lys Ala Ile  
 805 810 815  
 Gly Tyr Leu Asn Thr Gly Tyr Gln Arg Gln Leu Asn Tyr Lys His Tyr  
 820 825 830  
 Asp Gly Ser Tyr Ser Thr Phe Gly Glu Arg Tyr Gly Arg Asn Gln Gly  
 835 840 845  
 Asn Thr Trp Leu Thr Ala Phe Val Leu Lys Thr Phe Ala Gln Ala Arg  
 850 855 860  
 Ala Tyr Ile Phe Ile Asp Glu Ala His Ile Thr Gln Ala Leu Ile Trp  
 865 870 875 880  
 Leu Ser Gln Arg Gln Lys Asp Asn Gly Cys Phe Arg Ser Ser Gly Ser  
 885 890 895  
 Leu Leu Asn Asn Ala Ile Lys Gly Gly Val Glu Asp Glu Val Thr Leu  
 900 905 910  
 Ser Ala Tyr Ile Thr Ile Ala Leu Leu Glu Ile Pro Leu Thr Val Thr  
 915 920 925  
 His Pro Val Val Arg Asn Ala Leu Phe Cys Leu Glu Ser Ala Trp Lys  
 930 935 940  
 Thr Ala Gln Glu Gly Asp His Gly Ser His Val Tyr Thr Lys Ala Leu  
 945 950 955 960  
 Leu Ala Tyr Ala Phe Ala Leu Ala Gly Asn Gln Asp Lys Arg Lys Glu  
 965 970 975  
 Val Leu Lys Ser Leu Asn Glu Glu Ala Val Lys Lys Asp Asn Ser Val  
 980 985 990  
 His Trp Glu Arg Pro Gln Lys Pro Lys Ala Pro Val Gly His Phe Tyr  
 995 1000 1005  
 Glu Pro Gln Ala Pro Ser Ala Glu Val Glu Met Thr Ser Tyr Val Leu  
 1010 1015 1020  
 Leu Ala Tyr Leu Thr Ala Gln Pro Ala Pro Thr Ser Glu Asp Leu Thr  
 1025 1030 1035 1040  
 Ser Ala Thr Asn Ile Val Lys Trp Ile Thr Lys Gln Gln Asn Ala Gln  
 1045 1050 1055  
 Gly Gly Phe Ser Ser Thr Gln Asp Thr Val Val Ala Leu His Ala Leu  
 1060 1065 1070

1462

Ser Lys Tyr Gly Ala Ala Thr Phe Thr Arg Thr Gly Lys Ala Ala Gln  
 1075 1080 1085  
 Val Thr Ile Gln Ser Ser Gly Thr Phe Ser Ser Lys Phe Gln Val Asp  
 1090 1095 1100  
 Asn Asn Asn Arg Leu Leu Leu Gln Gln Val Ser Leu Pro Glu Leu Pro  
 105 1110 1115 1120  
 Gly Glu Tyr Ser Met Lys Val Thr Gly Glu Gly Cys Val Tyr Leu Gln  
 1125 1130 1135  
 Thr Ser Leu Lys Tyr Asn Ile Leu Pro Glu Lys Glu Glu Phe Pro Phe  
 1140 1145 1150  
 Ala Leu Gly Val Gln Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys Ala  
 1155 1160 1165  
 His Thr Ser Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser Arg  
 1170 1175 1180  
 Ser Ala Ser Asn Met Ala Ile Val Asp Val Lys Met Val Ser Gly Phe  
 185 1190 1195 1200  
 Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser Asn His Val  
 1205 1210 1215  
 Ser Arg Thr Glu Val Ser Ser Asn His Val Leu Ile Tyr Leu Asp Lys  
 1220 1225 1230  
 Val Ser Asn Gln Thr Leu Ser Leu Phe Phe Thr Val Leu Gln Asp Val  
 1235 1240 1245  
 Pro Val Arg Asp Leu Lys Pro Ala Ile Val Lys Val Tyr Asp Tyr Tyr  
 1250 1255 1260  
 Glu Thr Asp Glu Phe Ala Ile Ala Glu Tyr Asn Ala Pro Cys Ser Lys  
 265 1270 1275 1280  
 Asp Leu Gly Asn Ala  
 1285

&lt;210&gt; 1395

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1395

Ile Thr Lys Asn Ile Tyr Ser Asp Leu Lys Asp Leu Ser Ala Lys Asn

1463

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      1             5             10             15
Gln Ser Ile Ser Cys Pro Ser Ile Ile Val His Ala Cys Leu Leu Leu
      20             25             30
Phe Thr Cys Ser Ser Ala Gln Thr Val Ser Asn Leu Gly Thr Pro Phe
      35             40             45
Gly Ala Asp Lys Tyr Ser Ser Ala Phe Ser Pro Gln Ile Tyr Asn Asp
      50             55             60
Phe Asn Ile Pro Lys Asn Ile Gly Ile Ser Glu
      65             70             75

```

&lt;210&gt; 1396

&lt;211&gt; 920

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1396

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Arg Thr Arg Gly Ile His Gly Glu Met Arg Leu Phe Val Ser Asp Gly
  1             5             10             15
Val Pro Gly Cys Leu Pro Val Leu Ala Ala Ala Gly Arg Ala Arg Gly
      20             25             30
Arg Ala Glu Val Leu Ile Ser Thr Val Gly Pro Glu Asp Cys Val Val
      35             40             45
Pro Phe Leu Thr Arg Pro Lys Val Pro Val Leu Gln Leu Asp Ser Gly
      50             55             60
Asn Tyr Leu Phe Ser Thr Ser Ala Ile Cys Arg Tyr Phe Phe Leu Leu
      65             70             75             80
Ser Gly Trp Glu Gln Asp Asp Leu Thr Asn Gln Trp Leu Glu Trp Glu
      85             90             95
Ala Thr Glu Leu Gln Pro Ala Leu Ser Ala Ala Leu Tyr Tyr Leu Val
      100             105             110
Val Gln Gly Lys Lys Gly Glu Asp Val Leu Gly Ser Val Arg Arg Ala
      115             120             125
Leu Thr His Ile Asp His Ser Leu Ser Arg Gln Asn Cys Pro Phe Leu
      130             135             140
Ala Gly Glu Thr Glu Ser Leu Ala Asp Ile Val Leu Trp Gly Ala Leu
      145             150             155             160

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1464

Tyr Pro Leu Leu Gln Asp Pro Ala Tyr Leu Pro Glu Glu Leu Ser Ala  
 165 170 175  
 Leu His Ser Trp Phe Gln Thr Leu Ser Thr Gln Glu Pro Cys Gln Arg  
 180 185 190  
 Ala Ala Glu Thr Val Leu Lys Gln Gln Gly Val Leu Ala Leu Arg Pro  
 195 200 205  
 Tyr Leu Gln Lys Gln Pro Gln Pro Ser Pro Ala Glu Gly Arg Ala Val  
 210 215 220  
 Thr Asn Glu Pro Glu Glu Glu Leu Ala Thr Leu Ser Glu Glu Glu  
 225 230 235 240  
 Ile Ala Met Ala Val Thr Ala Trp Glu Lys Gly Leu Glu Ser Leu Pro  
 245 250 255  
 Pro Leu Arg Pro Gln Gln Asn Pro Val Leu Pro Val Ala Gly Glu Arg  
 260 265 270  
 Asn Val Leu Ile Thr Ser Ala Leu Pro Tyr Val Asn Asn Val Pro His  
 275 280 285  
 Leu Gly Asn Ile Ile Gly Cys Val Leu Ser Ala Asp Val Phe Ala Arg  
 290 295 300  
 Tyr Ser Arg Leu Arg Gln Trp Asn Thr Leu Tyr Leu Cys Gly Thr Asp  
 305 310 315 320  
 Glu Tyr Gly Thr Ala Thr Glu Thr Lys Ala Leu Glu Glu Gly Leu Thr  
 325 330 335  
 Pro Gln Glu Ile Cys Asp Lys Tyr His Ile Ile His Ala Asp Ile Tyr  
 340 345 350  
 Arg Trp Phe Asn Ile Ser Phe Asp Ile Phe Gly Arg Thr Thr Thr Pro  
 355 360 365  
 Gln Gln Thr Lys Ile Thr Gln Asp Ile Phe Gln Gln Leu Leu Lys Arg  
 370 375 380  
 Gly Phe Val Leu Gln Asp Thr Val Glu Gln Leu Arg Cys Glu His Cys  
 385 390 395 400  
 Ala Arg Phe Leu Ala Asp Arg Phe Val Glu Gly Val Cys Pro Phe Cys  
 405 410 415  
 Gly Tyr Glu Glu Ala Arg Gly Asp Gln Cys Asp Lys Cys Gly Lys Leu  
 420 425 430



1465

```

Ile Asn Ala Val Glu Leu Lys Lys Pro Gln Cys Lys Val Cys Arg Ser
    435                      440                      445

Cys Pro Val Val Gln Ser Ser Gln His Leu Phe Leu Asp Leu Pro Lys
    450                      455                      460

Leu Glu Lys Arg Leu Glu Glu Trp Leu Gly Arg Thr Leu Pro Gly Ser
    465                      470                      475                      480

Asp Trp Thr Pro Asn Ala Gln Phe Ile Thr Arg Ser Trp Leu Arg Asp
    485                      490                      495

Gly Leu Lys Pro Arg Cys Ile Thr Arg Asp Leu Lys Trp Gly Thr Pro
    500                      505                      510

Val Pro Leu Glu Gly Phe Glu Asp Lys Val Phe Tyr Val Trp Phe Asp
    515                      520                      525

Ala Thr Ile Gly Tyr Leu Ser Ile Thr Ala Asn Tyr Thr Asp Gln Trp
    530                      535                      540

Glu Arg Trp Trp Lys Asn Pro Glu Gln Val Asp Leu Tyr Gln Phe Met
    545                      550                      555                      560

Ala Lys Asp Asn Val Pro Phe His Ser Leu Val Phe Pro Cys Ser Ala
    565                      570                      575

Leu Gly Ala Glu Asp Asn Tyr Thr Leu Val Ser His Leu Ile Ala Thr
    580                      585                      590

Glu Tyr Leu Asn Tyr Glu Asp Gly Lys Phe Ser Lys Ser Arg Gly Val
    595                      600                      605

Gly Val Phe Gly Asp Met Ala Gln Asp Thr Gly Ile Pro Ala Asp Ile
    610                      615                      620

Trp Arg Phe Tyr Leu Leu Tyr Ile Arg Pro Glu Gly Gln Asp Ser Ala
    625                      630                      635                      640

Phe Ser Trp Thr Asp Leu Leu Leu Lys Asn Asn Ser Glu Leu Leu Asn
    645                      650                      655

Asn Leu Gly Asn Phe Ile Asn Arg Ala Gly Met Phe Val Ser Lys Phe
    660                      665                      670

Phe Gly Gly Tyr Val Pro Glu Met Val Leu Thr Pro Asp Asp Gln Arg
    675                      680                      685

Leu Leu Ala His Val Thr Leu Glu Leu Gln His Tyr His Gln Leu Leu
    690                      695                      700

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1466

Glu Lys Val Arg Ile Arg Asp Ala Leu Arg Ser Ile Leu Thr Ile Ser  
 705 710 715 720  
 Arg His Gly Asn Gln Tyr Ile Gln Val Asn Glu Pro Trp Lys Arg Ile  
 725 730 735  
 Lys Gly Ser Glu Ala Asp Arg Gln Arg Ala Gly Thr Val Thr Gly Leu  
 740 745 750  
 Ala Val Asn Ile Ala Ala Leu Leu Ser Val Met Leu Gln Pro Tyr Met  
 755 760 765  
 Pro Thr Val Ser Ala Thr Ile Gln Ala Gln Leu Gln Leu Pro Pro Pro  
 770 775 780  
 Ala Cys Ser Ile Leu Leu Thr Asn Phe Leu Cys Thr Leu Pro Ala Gly  
 785 790 795 800  
 His Gln Ile Gly Thr Val Ser Pro Leu Phe Gln Lys Leu Glu Asn Asp  
 805 810 815  
 Gln Ile Glu Ser Leu Arg Gln Arg Phe Gly Gly Gly Gln Ala Lys Thr  
 820 825 830  
 Ser Pro Lys Pro Ala Val Val Glu Thr Val Thr Thr Ala Lys Pro Gln  
 835 840 845  
 Gln Ile Gln Ala Leu Met Asp Glu Val Thr Lys Gln Gly Asn Ile Val  
 850 855 860  
 Arg Glu Leu Lys Ala Gln Lys Ala Asp Lys Asn Glu Val Ala Ala Glu  
 865 870 875 880  
 Val Ala Lys Leu Leu Asp Leu Lys Lys Gln Leu Ala Val Ala Glu Gly  
 885 890 895  
 Asn Pro Leu Lys Pro Leu Lys Ala Arg Arg Lys Ser Lys Arg Pro Trp  
 900 905 910  
 Leu Ile Glu Ser His Phe Asn Arg  
 915 920

&lt;210&gt; 1397

&lt;211&gt; 476

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1467

&lt;221&gt; SITE

&lt;222&gt; (127)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1397

Lys	Met	Ala	Ala	Leu	Thr	Thr	Leu	Phe	Lys	Tyr	Ile	Asp	Glu	Asn	Gln
1				5					10					15	
Asp	Arg	Tyr	Ile	Lys	Lys	Leu	Ala	Lys	Trp	Val	Ala	Ile	Gln	Ser	Val
			20					25					30		
Ser	Ala	Trp	Pro	Glu	Lys	Arg	Gly	Glu	Ile	Arg	Arg	Met	Met	Glu	Val
		35					40					45			
Ala	Ala	Ala	Asp	Val	Lys	Gln	Leu	Gly	Gly	Ser	Val	Glu	Leu	Val	Asp
	50					55					60				
Ile	Gly	Lys	Gln	Lys	Leu	Pro	Asp	Gly	Ser	Glu	Ile	Pro	Leu	Pro	Pro
65					70					75				80	
Ile	Leu	Leu	Gly	Arg	Leu	Gly	Ser	Asp	Pro	Gln	Lys	Lys	Thr	Val	Cys
			85					90						95	
Ile	Tyr	Gly	His	Leu	Asp	Val	Gln	Pro	Ala	Ala	Leu	Glu	Asp	Gly	Trp
		100					105						110		
Asp	Ser	Glu	Pro	Phe	Thr	Leu	Val	Glu	Arg	Asp	Gly	Lys	Leu	Xaa	Gly
		115					120					125			
Arg	Gly	Ser	Thr	Asp	Asp	Lys	Gly	Pro	Val	Ala	Gly	Trp	Ile	Asn	Ala
	130					135					140				
Leu	Glu	Ala	Tyr	Gln	Lys	Thr	Gly	Gln	Glu	Ile	Pro	Val	Asn	Val	Arg
145					150					155				160	
Phe	Cys	Leu	Glu	Gly	Met	Glu	Glu	Ser	Gly	Ser	Glu	Gly	Leu	Asp	Glu
			165						170					175	
Leu	Ile	Phe	Ala	Arg	Lys	Asp	Thr	Phe	Phe	Lys	Asp	Val	Asp	Tyr	Val
		180						185					190		
Cys	Ile	Ser	Asp	Asn	Tyr	Trp	Leu	Gly	Lys	Lys	Lys	Pro	Cys	Ile	Thr
		195					200					205			
Tyr	Gly	Leu	Arg	Gly	Ile	Cys	Tyr	Phe	Phe	Ile	Glu	Val	Glu	Cys	Ser
	210					215					220				
Asn	Lys	Asp	Leu	His	Ser	Gly	Val	Tyr	Gly	Gly	Ser	Val	His	Glu	Ala
225					230					235				240	
Met	Thr	Asp	Leu	Ile	Leu	Leu	Met	Gly	Ser	Leu	Val	Asp	Lys	Arg	Gly

1468

245	250	255
Asn Ile Leu Ile Pro Gly Ile Asn Glu Ala Val Ala Ala Val Thr Glu 260	265	270
Glu Glu His Lys Leu Tyr Asp Asp Ile Asp Phe Asp Ile Glu Glu Phe 275	280	285
Ala Lys Asp Val Gly Ala Gln Ile Leu Leu His Ser His Lys Lys Asp 290	295	300
Ile Leu Met His Arg Trp Arg Tyr Pro Ser Leu Ser Leu His Gly Ile 305	310	315
Glu Gly Ala Phe Ser Gly Ser Gly Ala Lys Thr Val Ile Pro Arg Lys 325	330	335
Val Val Gly Lys Phe Ser Ile Arg Leu Val Pro Asn Met Thr Pro Glu 340	345	350
Val Val Gly Glu Gln Val Thr Ser Tyr Leu Thr Lys Lys Phe Ala Glu 355	360	365
Leu Arg Ser Pro Asn Glu Phe Lys Val Tyr Met Gly His Gly Gly Lys 370	375	380
Pro Trp Val Ser Asp Phe Ser His Pro His Tyr Leu Ala Gly Arg Arg 385	390	395
Ala Met Lys Thr Val Phe Gly Val Glu Pro Asp Leu Thr Arg Glu Gly 405	410	415
Gly Ser Ile Pro Val Thr Leu Thr Phe Gln Glu Ala Thr Gly Lys Asn 420	425	430
Val Met Leu Leu Pro Val Gly Ser Ala Asp Asp Gly Ala His Ser Gln 435	440	445
Asn Glu Lys Leu Asn Arg Tyr Asn Tyr Ile Glu Gly Thr Lys Met Leu 450	455	460
Ala Ala Tyr Leu Tyr Glu Val Ser Gln Leu Lys Asp 465	470	475

&lt;210&gt; 1398

&lt;211&gt; 187

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1469

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1398

Leu His Leu Xaa Pro Thr Ser Ile Ser Ser Ser Ser Ser Cys Ser Val  
 1 5 10 15

Ser Ser Val Val Ser Gln Arg Leu Thr Glu Ser Pro Cys Ala Leu Val  
 20 25 30

Ala Ser Gln Tyr Gly Trp Ser Gly Asn Met Glu Arg Ile Met Lys Ala  
 35 40 45

Gln Ala Tyr Gln Thr Gly Lys Asp Ile Ser Thr Asn Tyr Tyr Ala Ser  
 50 55 60

Gln Lys Lys Thr Phe Glu Ile Asn Pro Arg His Pro Leu Ile Arg Asp  
 65 70 75 80

Met Leu Arg Arg Ile Lys Glu Asp Glu Asp Asp Lys Thr Val Leu Asp  
 85 90 95

Leu Ala Val Val Leu Phe Glu Thr Ala Thr Leu Arg Ser Gly Tyr Leu  
 100 105 110

Leu Pro Asp Thr Lys Ala Tyr Gly Asp Arg Ile Glu Arg Met Leu Arg  
 115 120 125

Leu Ser Leu Asn Ile Asp Pro Asp Ala Lys Val Glu Glu Glu Pro Glu  
 130 135 140

Glu Glu Pro Glu Glu Thr Ala Glu Asp Thr Thr Glu Asp Thr Glu Gln  
 145 150 155 160

Asp Glu Asp Glu Glu Met Asp Val Gly Thr Asp Glu Glu Glu Glu Thr  
 165 170 175

Ala Lys Glu Ser Thr Ala Glu Lys Asp Glu Leu  
 180 185

&lt;210&gt; 1399

&lt;211&gt; 376

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1399

Lys Ser Ser Thr Gly Val Ile Pro Asp Glu Ala Lys Ala Leu Ser Leu

1470

1	5	10	15
Leu Ala Pro Ala Asn Ala Val Ala Gly Leu Leu Pro Gly Gly Gly Leu	20	25	30
Leu Pro Thr Pro Asn Pro Leu Thr Gln Ile Gly Ala Val Pro Leu Ala	35	40	45
Ala Leu Gly Ala Pro Thr Leu Asp Pro Ala Leu Ala Ala Leu Gly Leu	50	55	60
Pro Gly Ala Asn Leu Asn Ser Gln Ser Leu Ala Ala Asp Gln Leu Leu	65	70	75
Lys Leu Met Ser Thr Val Asp Pro Lys Leu Asn His Val Ala Ala Gly	85	90	95
Leu Val Ser Pro Ser Leu Lys Ser Asp Thr Ser Ser Lys Glu Ile Glu	100	105	110
Glu Ala Met Lys Arg Val Arg Glu Ala Gln Ser Leu Ile Ser Ala Ala	115	120	125
Ile Glu Pro Asp Lys Lys Glu Glu Lys Arg Arg His Ser Arg Ser Arg	130	135	140
Ser Arg Ser Arg Arg Arg Arg Thr Pro Ser Ser Ser Arg His Arg Arg	145	150	155
Ser Arg Ser Arg Ser Arg Arg Arg Ser His Ser Lys Ser Arg Ser Arg	165	170	175
Arg Arg Ser Lys Ser Pro Arg Arg Arg Arg Ser His Ser Arg Glu Arg	180	185	190
Gly Arg Arg Ser Arg Ser Thr Ser Lys Thr Arg Asp Lys Lys Lys Glu	195	200	205
Asp Lys Glu Lys Lys Arg Ser Lys Thr Pro Pro Lys Ser Tyr Ser Thr	210	215	220
Ala Arg Arg Ser Arg Ser Ala Ser Arg Glu Arg Arg Arg Arg Ser	225	230	235
Arg Ser Gly Thr Arg Ser Pro Lys Lys Pro Arg Ser Pro Lys Arg Lys	245	250	255
Leu Ser Arg Ser Pro Ser Pro Arg Arg His Lys Lys Glu Lys Lys Lys	260	265	270
Asp Lys Asp Lys Glu Arg Ser Arg Asp Glu Arg Glu Arg Ser Thr Ser			

1471

275	280	285
Lys Lys Lys Lys Ser Lys Asp Lys Glu Lys Asp Arg Glu Arg Lys Ser		
290	295	300
Glu Ser Asp Lys Asp Val Lys Gln Val Thr Arg Asp Tyr Asp Glu Glu		
305	310	315
Glu Gln Gly Tyr Asp Ser Glu Lys Glu Lys Lys Glu Glu Lys Lys Pro		
	325	330
Ile Glu Thr Gly Ser Pro Lys Thr Lys Glu Cys Ser Val Glu Lys Gly		
	340	345
Thr Gly Asp Ser Leu Arg Glu Ser Lys Val Asn Gly Asp Asp His His		
	355	360
Glu Glu Asp Met Asp Met Ser Asp		
370	375	

&lt;210&gt; 1400

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1400

Thr Ala Gly Leu Thr Ser Arg Gly Trp Gly Ser Leu Pro Pro Ser Leu		
1	5	10
Glu Thr Phe Leu Xaa Trp Leu Lys Ser Arg Lys Glu Asn Glu Cys Thr		
20	25	30
Ser Arg Leu Ala Gln Ser Leu Ser Pro Ser Ser Ser Leu Phe Pro Ala		
35	40	45
Gly Pro Ser Gly Leu Tyr Gly Pro Asp Gly Gly Leu Arg Lys Met Arg		
50	55	60
Gly Leu Trp Phe Ser Gly Ile Pro Ala Gly Ala Thr Pro Ser Cys Leu		
65	70	75
Gln Met Val His Val Pro Ile Pro Pro Ser Arg Pro Leu Leu Cys Leu		
85	90	95

1472

Leu Cys His Arg Asp Ser Gln Gln Arg Phe Phe Phe Val Leu Ala Val  
100 105 110

&lt;210&gt; 1401

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1401

Arg Arg Gln Val Gly Ala Ala Ala Val Ala Met Thr Arg Gly Asn Gln  
1 5 10 15

Arg Glu Leu Ala Arg Gln Lys Asn Met Lys Lys Gln Ser Asp Ser Val  
20 25 30

Lys Gly Lys Arg Arg Asp Asp Gly Leu Ser Ala Ala Ala Arg Lys Gln  
35 40 45

Arg Asp Ser Glu Ile Met Gln Gln Lys Gln Lys Lys Ala Asn Glu Lys  
50 55 60

Lys Glu Glu Pro Lys  
65

&lt;210&gt; 1402

&lt;211&gt; 177

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (162)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (166)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



1473

&lt;400&gt; 1402

Arg Pro Pro Arg Arg Xaa Pro Met Asp Gly Pro Ala Ile Ile Thr Gln  
 1 5 10 15

Val Thr Asn Pro Lys Glu Asp Glu Gly Arg Leu Pro Gly Ala Gly Glu  
 20 25 30

Lys Ala Ser Gln Cys Asn Val Ser Leu Lys Lys Gln Arg Ser Arg Ser  
 35 40 45

Ile Leu Ser Ser Phe Phe Cys Cys Phe Arg Asp Tyr Asn Val Glu Ala  
 50 55 60

Pro Pro Pro Ser Ser Pro Ser Val Leu Pro Pro Leu Val Glu Glu Asn  
 65 70 75 80

Gly Gly Leu Gln Lys Pro Pro Ala Lys Tyr Leu Leu Pro Glu Val Thr  
 85 90 95

Val Leu Asp Tyr Gly Lys Lys Cys Val Val Ile Asp Leu Asp Glu Thr  
 100 105 110

Leu Val His Ser Ser Phe Lys Pro Ile Ser Asn Ala Asp Phe Ile Val  
 115 120 125

Pro Val Glu Ile Asp Gly Thr Ile His Gln Val Tyr Val Leu Lys Arg  
 130 135 140

Pro His Val Asp Glu Phe Leu Gln Arg Met Gly Gln Leu Leu Asn Val  
 145 150 155 160

Cys Xaa Leu Leu Pro Xaa Gly Gln Val Cys Arg Pro Val Ala Asp Leu  
 165 170 175

Leu

&lt;210&gt; 1403

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1403

Lys His Ile Leu Ser Thr Phe Glu Thr Ser Val Leu Glu Gly Arg Leu  
 1 5 10 15

His Lys Leu Ser Ser Pro Arg Leu Arg Arg Leu Gln Ser Gly Lys Leu  
 20 25 30

1474

Thr Cys Arg Asn Gly Val Pro Phe Met Leu Tyr Leu Asp Lys Gly Asn  
35 40 45

Gln Lys Trp Asn Gln Cys Arg Gln Asn Leu Gly Phe Ala Ala Ser Ile  
50 55 60

Asn Gln Ser Met Thr Asn Arg Gly Ser Leu Lys Cys Lys Gly Thr Asn  
65 70 75 80

Phe Thr

<210> 1404

<211> 251

<212> PRT

<213> Homo sapiens

**<220>**

**<221> SITE**

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

**<222> (41)**

<223> Xaa equals any of the naturally occurring L-amino acids

**<400> 1404**

Thr Thr Lys Pro Ala Thr Thr Pro Ser Ser Thr Thr Arg Thr Cys Arg  
1 5 10 15

Arg Ser Pro Ser Thr Leu Pro Ser Ala Thr Trp Thr Pro Leu Ala Ser  
20 25 30

Arg Thr Ala His Xaa Leu Pro Arg Xaa Tyr Met Tyr Pro Ser Met Asp  
35 40 45

Gln Leu Ala Glu Met Leu Pro Gly Val Leu Gln Gln Phe Gly Leu Lys  
50 55 60

Ser Ile Ile Gly Met Gly Thr Gly Ala Gly Ala Tyr Ile Leu Thr Arg  
65 70 75 80

Phe Ala Leu Asn Asn Pro Glu Met Val Glu Gly Leu Val Leu Ile Asn  
85 90 95

Val Asn Pro Cys Ala Glu Gly Trp Met Asp Trp Ala Ala Ser Lys Ile  
100 105 110

1475

Ser Gly Trp Thr Gln Ala Leu Pro Asp Met Val Val Ser His Leu Phe  
 115 120 125  
 Gly Lys Glu Glu Met Gln Ser Asn Val Glu Val Val His Thr Tyr Arg  
 130 135 140  
 Gln His Ile Val Asn Asp Met Asn Pro Gly Asn Leu His Leu Phe Ile  
 145 150 155 160  
 Asn Ala Tyr Asn Ser Arg Arg Asp Leu Glu Ile Glu Arg Pro Met Pro  
 165 170 175  
 Gly Thr His Thr Val Thr Leu Gln Cys Pro Ala Leu Leu Val Val Gly  
 180 185 190  
 Asp Ser Ser Pro Ala Val Asp Ala Val Val Glu Cys Asn Ser Lys Leu  
 195 200 205  
 Asp Pro Thr Lys Thr Thr Leu Leu Lys Met Ala Asp Cys Gly Gly Leu  
 210 215 220  
 Pro Gln Ile Ser Gln Pro Ala Lys Leu Ala Glu Ala Phe Lys Tyr Phe  
 225 230 235 240  
 Val Gln Gly Met Gly Tyr Met Pro Arg Leu Ala  
 245 250

&lt;210&gt; 1405

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1405

Phe Glu Gly Phe Tyr Ser Gly Arg Lys Asn Arg Thr Lys Val Tyr Val  
 1 5 10 15  
 Pro Ser Ser Val Val Leu Ile Asp Leu Phe Phe Leu Phe Glu Thr Lys  
 20 25 30  
 Val Val Ser Val Phe Trp Phe Ser Gly Asn Met Tyr Tyr Ile Val Leu  
 35 40 45  
 Lys Glu Cys Cys Pro Thr Asn Tyr Ser Ser Lys Gln Arg Ile Val Thr  
 50 55 60  
 Ile Asn Lys Val Ser Val Thr Leu Leu Pro Leu Ser His Asn Ile His  
 65 70 75 80  
 Cys Arg Ala Leu Cys Arg Ser Lys Asn Arg Ala Ala Gln Asn Leu Cys

1476

	85		90		95
Gly Ser Phe Leu Ser Phe Cys Asn Leu Arg His Met Phe Gln Arg Thr					
	100		105		110
Gly Ile Phe Val Trp Ser Ser Asp Leu Gly Asp His Ser His Asn					
	115		120		125

&lt;210&gt; 1406

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (90)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (112)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (169)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (190)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (192)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (194)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1477

&lt;221&gt; SITE

&lt;222&gt; (217)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (218)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1406

Ala Glu Arg Pro Leu Gln Val Pro Arg Ser Ala Gly Glu Ala Ala Pro  
 1 5 10 15

His Ser Arg Arg Pro Pro Gly Leu Leu Pro His Ala Pro Arg Ala Ala  
 20 25 30

Ser Ala Gln Leu Glu Glu Arg Arg Arg Asp Pro His Pro Gly Met Thr  
 35 40 45

Leu Gln Glu Gly Asp Cys Arg Gly Ser Gln Thr Val Ser Leu Thr Met  
 50 55 60

Gly Thr Ala Asp Ser Asp Glu Met Ala Pro Glu Ala Pro Gln His Thr  
 65 70 75 80

His Ile Asp Val His Ile His Gln Glu Xaa Ala Leu Ala Lys Leu Leu  
 85 90 95

Leu Thr Cys Cys Ser Ala Leu Arg Pro Arg Ala Thr Gln Ala Arg Xaa  
 100 105 110

Ser Ser Arg Leu Leu Xaa Ala Ser Trp Val Met Gln Ile Val Leu Gly  
 115 120 125

Ile Leu Ser Ala Val Leu Gly Gly Phe Phe Tyr Ile Arg Asp Tyr Thr  
 130 135 140

Leu Leu Val Thr Ser Gly Ala Ala Ser Gly Gln Gly Leu Trp Leu Cys  
 145 150 155 160

Cys Trp Ser Cys Cys Leu His Leu Xaa Glu Thr Gly Trp Tyr Ile Leu  
 165 170 175

Gly Pro Ala Glu Asp Ser Ala Asn Ala Gly Lys Leu Ser Xaa Gln Xaa  
 180 185 190

Ser Xaa Ala Ser Asn Phe Gly Asn Glu Glu Phe Arg Tyr Gly Leu Leu  
 195 200 205

Leu Ile Thr Thr Ser Gly Trp Pro Xaa Xaa Gln Val Arg Val Asp Trp  
 210 215 220

1478

Asn Thr Ser Ser Pro Gln  
225 230

&lt;210&gt; 1407

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1407

Arg Gly His Phe Leu Leu Pro Asp Leu Asp Ile Pro Ser Asn Pro Ser  
1 5 10 15

Ser Tyr Ser Met Leu Lys Glu Lys Tyr Ser Gln Met His Tyr Val Asn  
20 25 30

Gly Glu Lys Lys His Ser Ile Val Glu Thr Pro Ile Leu Ala Asn Val  
35 40 45

Phe Trp Ser Val Phe His Phe Thr Val Tyr Ile Pro Ala Leu Lys Thr  
50 55 60

Gln Gly Gln Val Leu Thr Lys Glu Val Cys Ser His Ser Lys Tyr  
65 70 75

&lt;210&gt; 1408

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1408

Val Arg Pro Pro Ser His Val Thr Ala Asp Ser Gly Arg Ser Pro Leu  
1 5 10 15

Ser Leu Thr Tyr Leu Pro Leu Gln Glu Pro Gly Asp Met Ala Ala Ala  
20 25 30

Val Pro Arg Ala Ala Phe Leu Ser Pro Leu Leu Pro Leu Leu Leu Gly  
35 40 45

Phe Leu Leu Leu Ser Ala Pro His Gly Gly Ser Gly Leu His Thr Lys  
50 55 60

Gly Ala Leu Pro Leu Asp Thr Val Thr Phe Tyr Lys Val Ile Pro Lys  
65 70 75 80

Ser Lys Phe Val Leu Val Lys Phe Asp Thr Gln Tyr Pro Tyr Gly Glu

1479

85					90					95						
Lys	Gln	Asp	Glu	Phe	Lys	Arg	Leu	Ala	Glu	Asn	Ser	Ala	Ser	Ser	Asp	
100					105					110						
Asp	Leu	Leu	Val	Ala	Glu	Val	Gly	Ile	Ser	Asp	Tyr	Gly	Asp	Lys	Leu	
115					120					125						
Asn	Met	Glu	Leu	Ser	Glu	Lys	Tyr	Lys	Leu	Asp	Lys	Glu	Ser	Tyr	Pro	
130					135					140						
Val	Phe	Tyr	Leu	Phe	Arg	Asp	Gly	Asp	Phe	Glu	Asn	Pro	Val	Pro	Tyr	
145					150					155					160	
Thr	Gly	Ala	Val	Lys	Val	Gly	Ala	Ile	Gln	Arg	Trp	Leu	Lys	Gly	Gln	
165					170					175						
Gly	Val	Tyr	Leu	Gly	Met	Pro	Gly	Cys	Leu	Pro	Val	Tyr	Asp	Ala	Leu	
180					185					190						
Ala	Gly	Glu	Phe	Ile	Arg	Ala	Ser	Gly	Val	Glu	Ala	Arg	Gln	Ala	Leu	
195					200					205						
Leu	Lys	Gln	Gly	Gln	Asp	Asn	Leu	Ser	Ser	Val	Lys	Glu	Thr	Gln	Lys	
210					215					220						
Lys	Trp	Ala	Glu	Gln	Tyr	Leu	Lys	Ile	Met	Gly	Lys	Ile	Leu	Asp	Gln	
225					230					235					240	
Gly	Glu	Asp	Phe	Pro	Ala	Ser	Glu	Met	Thr	Arg	Ile	Ala	Arg	Leu	Ile	
245					250					255						
Glu	Lys	Asn	Lys	Met	Ser	Asp	Gly	Lys	Lys	Glu	Glu	Leu	Gln	Lys	Ser	
260					265					270						
Leu	Asn	Ile	Leu	Thr	Ala	Phe	Gln	Lys	Lys	Gly	Ala	Glu	Lys	Glu	Glu	
275					280					285						

Leu

&lt;210&gt; 1409

&lt;211&gt; 488

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1409

Pro Ala Ser Ala Gly Thr Val Ser Glu Gly Pro Pro Gly Thr Asp Gly

1

5

10

15

1480

Ser Ala Gly Arg Gly Gly Thr Ala Phe Ala Met Ala Ala Thr Val Asn  
 20 25 30  
 Leu Glu Leu Asp Pro Ile Phe Leu Lys Ala Leu Gly Phe Leu His Ser  
 35 40 45  
 Lys Ser Lys Asp Ser Ala Glu Lys Leu Lys Ala Leu Leu Asp Glu Ser  
 50 55 60  
 Leu Ala Arg Gly Ile Asp Ser Ser Tyr Arg Pro Ser Gln Lys Asp Val  
 65 70 75 80  
 Glu Pro Pro Lys Ile Ser Ser Thr Lys Asn Ile Ser Ile Lys Gln Glu  
 85 90 95  
 Pro Lys Ile Ser Ser Ser Leu Pro Ser Gly Asn Asn Asn Gly Lys Val  
 100 105 110  
 Leu Thr Thr Glu Lys Val Lys Lys Glu Ala Glu Lys Arg Pro Ala Asp  
 115 120 125  
 Lys Met Lys Ser Asp Ile Thr Glu Gly Val Asp Ile Pro Lys Lys Pro  
 130 135 140  
 Arg Leu Glu Lys Pro Glu Thr Gln Ser Ser Pro Ile Thr Val Gln Ser  
 145 150 155 160  
 Ser Lys Asp Leu Pro Met Ala Asp Leu Ser Ser Phe Glu Glu Thr Ser  
 165 170 175  
 Ala Asp Asp Phe Ala Met Glu Met Gly Leu Ala Cys Val Val Cys Arg  
 180 185 190  
 Gln Met Met Val Ala Ser Gly Asn Gln Leu Val Glu Cys Gln Glu Cys  
 195 200 205  
 His Asn Leu Tyr His Arg Asp Cys His Lys Pro Gln Val Thr Asp Lys  
 210 215 220  
 Glu Ala Asn Asp Pro Arg Leu Val Trp Tyr Cys Ala Arg Cys Thr Arg  
 225 230 235 240  
 Gln Met Lys Arg Met Ala Gln Lys Thr Gln Lys Pro Pro Gln Lys Pro  
 245 250 255  
 Ala Pro Ala Val Val Ser Val Thr Pro Ala Val Lys Asp Pro Leu Val  
 260 265 270  
 Lys Lys Pro Glu Thr Lys Leu Lys Gln Glu Thr Thr Phe Leu Ala Phe  
 275 280 285



1481

Lys Arg Thr Glu Val Lys Thr Ser Thr Val Ile Ser Gly Asn Ser Ser  
 290 295 300  
 Ser Ala Ser Val Ser Ser Ser Val Thr Ser Gly Leu Thr Gly Trp Ala  
 305 310 315 320  
 Ala Phe Ala Ala Lys Thr Ser Ser Ala Gly Pro Ser Thr Ala Lys Leu  
 325 330 335  
 Ser Ser Thr Thr Gln Asn Asn Thr Gly Lys Pro Ala Thr Ser Ser Ala  
 340 345 350  
 Asn Gln Lys Pro Val Gly Leu Thr Gly Leu Ala Thr Ser Ser Lys Gly  
 355 360 365  
 Gly Ile Gly Ser Lys Ile Gly Ser Asn Asn Ser Thr Thr Pro Thr Val  
 370 375 380  
 Pro Leu Lys Pro Pro Pro Pro Leu Thr Leu Gly Lys Thr Gly Leu Ser  
 385 390 395 400  
 Arg Ser Val Ser Cys Asp Asn Val Ser Lys Val Gly Leu Pro Ser Pro  
 405 410 415  
 Ser Ser Leu Val Pro Gly Ser Ser Ser Gln Leu Ser Gly Asn Gly Asn  
 420 425 430  
 Ser Gly Thr Ser Gly Pro Ser Gly Ser Thr Thr Ser Lys Thr Thr Ser  
 435 440 445  
 Glu Ser Ser Ser Ser Pro Ser Ala Ser Leu Lys Gly Pro Thr Ser Gln  
 450 455 460  
 Glu Ser Gln Leu Asn Ala Met Lys Arg Leu Gln Met Val Lys Lys Lys  
 465 470 475 480  
 Ala Ala Gln Lys Lys Leu Lys Lys  
 485

&lt;210&gt; 1410

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1482

&lt;400&gt; 1410

His Tyr Gly Leu Lys Leu Ala Val Lys Met Pro Asn Thr Val Val Pro  
 1 5 10 15

Trp Asn Pro Val Tyr Ser Cys Ala Lys Gln Asn Cys Lys Ile Val Lys  
 20 25 30

Met Ser Tyr Gln Val Ile Arg Arg Leu Gln Arg His His Leu Phe Phe  
 35 40 45

Ile Ser Phe Phe Xaa Leu Thr His Val Val Val Ile Phe Asn Thr Phe  
 50 55 60

&lt;210&gt; 1411

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1411

Ala Ala Cys Leu Ala Leu Arg Ile Ala Ala Ala Met Ala Ser Gln Ser  
 1 5 10 15

Gln Gly Ile Gln Gln Leu Leu Gln Ala Glu Lys Arg Ala Ala Glu Lys  
 20 25 30

Val Ser Glu Ala Arg Lys Arg Lys Asn Arg Arg Leu Lys Gln Ala Lys  
 35 40 45

Glu Glu Ala Gln Ala Glu Ile Glu Gln Tyr Arg Leu Gln Arg Glu Lys  
 50 55 60

Glu Phe Lys Ala Lys Glu Ala Ala Ala Leu Gly Ser Arg Gly Ser Cys  
 65 70 75 80

Ser Thr Glu Val Glu Lys Glu Thr Gln Glu Lys Met Thr Ile Leu Gln  
 85 90 95

Thr Tyr Phe Arg Gln Asn Arg Asp Glu Val Leu Asp Asn Leu Leu Ala  
 100 105 110

Phe Val Cys Asp Ile Arg Pro Glu Ile His Glu Asn Tyr Arg Ile Asn  
 115 120 125

Gly

1483

&lt;210&gt; 1412

&lt;211&gt; 177

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1412

Val Thr Val Pro Ser Ser Ser Ala Ala Gly Thr Leu Phe Gln Gly Leu  
 1 5 10 15

Cys Gly Ala Pro Asp Ala Pro His Pro Leu Ser Lys Ile Pro Gly Gly  
 20 25 30

Arg Gly Gly Gly Arg Asp Pro Ser Leu Ser Ala Leu Ile Tyr Lys Asp  
 35 40 45

Glu Lys Leu Thr Val Thr Gln Asp Leu Pro Val Asn Asp Gly Lys Pro  
 50 55 60

His Ile Val His Phe Gln Tyr Glu Val Thr Glu Val Lys Val Ser Ser  
 65 70 75 80

Trp Asp Ala Val Leu Ser Ser Gln Ser Leu Phe Val Glu Ile Pro Asp  
 85 90 95

Gly Leu Leu Ala Asp Gly Ser Lys Glu Gly Leu Leu Ala Leu Leu Glu  
 100 105 110

Phe Ala Glu Glu Lys Met Lys Val Asn Tyr Val Phe Ile Cys Phe Arg  
 115 120 125

Lys Gly Arg Glu Asp Arg Ala Pro Leu Leu Lys Thr Phe Ser Phe Leu  
 130 135 140

Gly Phe Glu Ile Val Arg Pro Gly His Pro Cys Val Pro Ser Arg Pro  
 145 150 155 160

Asp Val Met Phe Met Val Tyr Pro Leu Asp Gln Asn Leu Ser Asp Glu  
 165 170 175

Asp

&lt;210&gt; 1413

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1484

&lt;400&gt; 1413

Ser Gly Leu Arg Leu Ala Met Ser Thr Asn Asn Met Ser Asp Pro Arg  
 1 5 10 15  
 Arg Pro Asn Lys Val Leu Arg Tyr Lys Pro Pro Pro Ser Glu Cys Asn  
 20 25 30  
 Pro Ala Leu Asp Asp Pro Thr Pro Asp Tyr Met Asn Leu Leu Gly Met  
 35 40 45  
 Ile Phe Ser Met Cys Gly Leu Met Leu Lys Leu Lys Trp Cys Ala Trp  
 50 55 60  
 Val Ala Val Tyr Cys Ser Phe Ile Ser Phe Ala Asn Ser Arg Ser Ser  
 65 70 75 80  
 Glu Asp Thr Lys Gln Met Met Ser Ser Phe Met Leu Ser Ile Ser Ala  
 85 90 95  
 Val Val Met Ser Tyr Leu Gln Asn Pro Gln Pro Met Thr Pro Pro Trp  
 100 105 110

&lt;210&gt; 1414

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1414

Cys Leu Gly Gly Arg Pro Arg Cys Val Leu Arg Leu Thr Ala Asn Leu  
 1 5 10 15  
 Glu Gly Arg Arg Asp Ser Ala Thr His Ala Pro Pro His Pro Arg Leu  
 20 25 30  
 Arg Val Lys Arg Ala Val Gly Pro Glu Ser Pro Pro Leu Trp Gln Trp  
 35 40 45  
 Pro Pro Leu Tyr Ser Ile Leu Pro Ser Gly Arg Ser Ala Val Asn Lys  
 50 55 60  
 Arg Trp Ala Pro Gln Ser Thr Cys Pro Pro Thr Ala Leu Ala Val Leu  
 65 70 75 80  
 Gly Ser Ser Leu Gln Phe Thr Gly Asn Lys Pro Glu Ser Ala Arg Thr  
 85 90 95

Arg	Gly	Cys	Ser	Pro	Gly	Ser	Ala	Arg	Pro	Pro	Leu	Ser	Pro	Ala	Thr
			100					105					110		
Gly	Trp	Arg	Cys	Arg	Ala	Arg	Ala	Ala	Ala	Ser	Arg	Arg	Phe	Pro	Gly
			115				120					125			
Ala	Pro	Gly	Pro	Glu	Glu	Arg	Ser	Pro	Gln	Ser	Lys	Gly	Gly	Asn	Thr
			130				135				140				
Cys	Leu	Arg	Cys	Lys	Glu	Ile	Leu	Phe	Gln	Ser	Ile	Pro	Val	Val	Gln
145					150					155					160
Thr	Asp	Thr	Val	Pro	Asn	Glu	Arg	Ser	Asp	Val	Phe	Ser	Ser	Pro	Phe
				165					170					175	
Leu	Ile	Cys	Phe	Leu	Thr	Gly	Leu	Arg	Phe						
			180					185							

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<210> 1415
<211> 108
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (46)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (68)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```

<400> 1415
Thr Lys Thr Thr Leu Phe Leu Glu Arg Pro Leu Phe Lys Lys Glu Ser
  1             5             10             15

Ile Thr Pro Thr Val Glu Leu Asn Ala Leu Cys Met Lys Leu Gly Lys
      20             25             30

Lys Pro Met Tyr Lys Pro Val Asp Pro Tyr Ser Arg Met Xaa Ser Thr
      35             40             45

Tyr Asn Tyr Asn Met Arg Gly Gly Ala Tyr Pro Pro Arg Tyr Phe Tyr
      50             55             60

Pro Phe Pro Xaa Pro Pro Leu Leu Tyr Gln Val Glu Leu Ser Val Gly
      65             70             75             80

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1486

Gly Gln Gln Phe Asn Gly Lys Gly Lys Thr Arg Gln Ala Ala Lys His  
                     85                    90                    95

Asp Ala Ala Ala Lys Ala Val Glu Asp Pro Ala Glu  
                     100                    105

&lt;210&gt; 1416

&lt;211&gt; 621

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1416

Ala Gly His Arg Ala Gly Val Cys Ser Leu Ser Ala Thr Arg Leu Leu  
     1                    5                    10                    15

Leu Pro Lys Asp Arg Gly Val Gly Arg Arg Gln Thr Met Trp Thr Leu  
                     20                    25                    30

Val Ser Trp Val Ala Leu Thr Ala Gly Leu Val Ala Gly Thr Arg Cys  
                     35                    40                    45

Pro Asp Gly Gln Phe Cys Pro Val Ala Cys Cys Leu Asp Pro Gly Gly  
                     50                    55                    60

Ala Ser Tyr Ser Cys Cys Arg Pro Leu Leu Asp Lys Trp Pro Thr Thr  
     65                    70                    75                    80

Leu Ser Arg His Leu Gly Gly Pro Cys Gln Val Asp Ala His Cys Ser  
                     85                    90                    95

Ala Gly His Ser Cys Ile Phe Thr Val Ser Gly Thr Ser Ser Cys Cys  
                     100                    105                    110

Pro Phe Pro Glu Ala Val Ala Cys Gly Asp Gly His His Cys Cys Pro  
                     115                    120                    125

Arg Gly Phe His Cys Ser Ala Asp Gly Arg Ser Cys Phe Gln Arg Ser  
                     130                    135                    140

Gly Asn Asn Ser Val Gly Ala Ile Gln Cys Pro Asp Ser Gln Phe Glu  
     145                    150                    155                    160

Cys Pro Asp Phe Ser Thr Cys Cys Val Met Val Asp Gly Ser Trp Gly  
                     165                    170                    175

Cys Cys Pro Met Pro Gln Ala Ser Cys Cys Glu Asp Arg Val His Cys  
                     180                    185                    190

1487

Cys Pro His Gly Ala Phe Cys Asp Leu Val His Thr Arg Cys Ile Thr  
 195 200 205  
 Pro Thr Gly Thr His Pro Leu Ala Lys Lys Leu Pro Ala Gln Arg Thr  
 210 215 220  
 Asn Arg Ala Val Ala Leu Ser Ser Ser Val Met Cys Pro Asp Ala Arg  
 225 230 235 240  
 Ser Arg Cys Pro Asp Gly Ser Thr Cys Cys Glu Leu Pro Ser Gly Lys  
 245 250 255  
 Tyr Gly Cys Cys Pro Met Pro Asn Ala Thr Cys Cys Ser Asp His Leu  
 260 265 270  
 His Cys Cys Pro Gln Asp Thr Val Cys Asp Leu Ile Gln Ser Lys Cys  
 275 280 285  
 Leu Ser Lys Glu Asn Ala Thr Thr Asp Leu Leu Thr Lys Leu Pro Ala  
 290 295 300  
 His Thr Val Gly Asp Val Lys Cys Asp Met Glu Val Ser Cys Pro Asp  
 305 310 315 320  
 Gly Tyr Thr Cys Cys Arg Leu Gln Ser Gly Ala Trp Gly Cys Cys Pro  
 325 330 335  
 Phe Thr Gln Ala Val Cys Cys Glu Asp His Ile His Cys Cys Pro Ala  
 340 345 350  
 Gly Phe Thr Cys Asp Thr Gln Lys Gly Thr Cys Glu Gln Gly Pro His  
 355 360 365  
 Gln Val Pro Trp Met Glu Lys Ala Pro Ala His Leu Ser Leu Pro Asp  
 370 375 380  
 Pro Gln Ala Leu Lys Arg Asp Val Pro Cys Asp Asn Val Ser Ser Cys  
 385 390 395 400  
 Pro Ser Ser Asp Thr Cys Cys Gln Leu Thr Ser Gly Glu Trp Gly Cys  
 405 410 415  
 Cys Pro Ile Pro Glu Ala Val Cys Cys Ser Asp His Gln His Cys Cys  
 420 425 430  
 Pro Gln Gly Tyr Thr Cys Val Ala Glu Gly Gln Cys Gln Arg Gly Ser  
 435 440 445  
 Glu Ile Val Ala Gly Leu Glu Lys Met Pro Ala Arg Arg Ala Ser Leu  
 450 455 460

1488

Ser His Pro Arg Asp Ile Gly Cys Asp Gln His Thr Ser Cys Pro Val  
 465 470 475 480  
 Gly Gln Thr Cys Cys Pro Ser Leu Gly Gly Ser Trp Ala Cys Cys Gln  
 485 490 495  
 Leu Pro His Ala Val Cys Cys Glu Asp Arg Gln His Cys Cys Pro Ala  
 500 505 510  
 Gly Tyr Thr Cys Asn Val Lys Ala Arg Ser Cys Glu Lys Glu Val Val  
 515 520 525  
 Ser Ala Gln Pro Ala Thr Phe Leu Ala Arg Ser Pro His Val Gly Val  
 530 535 540  
 Lys Asp Val Glu Cys Gly Glu Gly His Phe Cys His Asp Asn Gln Thr  
 545 550 555 560  
 Cys Cys Arg Asp Asn Arg Gln Gly Trp Ala Cys Cys Pro Tyr Arg Gln  
 565 570 575  
 Gly Val Cys Cys Ala Asp Arg Arg His Cys Cys Pro Ala Gly Phe Arg  
 580 585 590  
 Cys Ala Ala Arg Gly Thr Lys Cys Leu Arg Arg Glu Ala Pro Arg Trp  
 595 600 605  
 Asp Ala Pro Leu Arg Asp Pro Ala Leu Arg Gln Leu Leu  
 610 615 620

&lt;210&gt; 1417

&lt;211&gt; 340

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1417

Ser Ala His Ala Ser Glu Arg Ile Ala Xaa Ser Gly Cys Gly Ala Pro  
 1 5 10 15



1489

Ala Ala Gly Ala Gly Pro Arg Xaa Arg Ser Leu Gly Ala Asp Pro Gly  
                   20                                  25                                  30

Arg Ala Ala Arg Arg His Glu Gly Gln Gly Gly Glu Gly Gly Arg Arg  
                   35                                  40                                  45

Thr Ala Gly Arg Trp Arg Arg Lys Pro Glu Lys Ser Pro Ser Ala Gln  
                   50                                  55                                  60

Glu Leu Lys Glu Gln Gly Asn Arg Leu Phe Val Gly Arg Lys Tyr Pro  
                   65                                  70                                  75                                  80

Glu Ala Ala Ala Cys Tyr Gly Arg Ala Ile Thr Arg Asn Pro Leu Val  
                                   85                                  90                                  95

Ala Val Tyr Tyr Thr Asn Arg Ala Leu Cys Tyr Leu Lys Met Gln Gln  
                   100                                  105                                  110

His Glu Gln Ala Leu Ala Asp Cys Arg Arg Ala Leu Glu Leu Asp Gly  
                   115                                  120                                  125

Gln Ser Val Lys Ala His Phe Phe Leu Gly Gln Cys Gln Leu Glu Met  
                   130                                  135                                  140

Glu Ser Tyr Asp Glu Ala Ile Ala Asn Leu Gln Arg Ala Tyr Ser Leu  
                   145                                  150                                  155                                  160

Ala Lys Glu Gln Arg Leu Asn Phe Gly Asp Asp Ile Pro Ser Ala Leu  
                                   165                                  170                                  175

Arg Ile Ala Lys Lys Lys Arg Trp Asn Ser Ile Glu Glu Arg Arg Ile  
                   180                                  185                                  190

His Gln Glu Ser Glu Leu His Ser Tyr Leu Ser Arg Leu Ile Ala Ala  
                   195                                  200                                  205

Glu Arg Glu Arg Glu Leu Glu Glu Cys Gln Arg Asn His Glu Gly Asp  
                   210                                  215                                  220

Glu Asp Asp Ser His Val Arg Ala Gln Gln Ala Cys Ile Glu Ala Lys  
                   225                                  230                                  235                                  240

His Asp Lys Tyr Met Ala Asp Met Asp Glu Leu Phe Ser Gln Val Asp  
                                   245                                  250                                  255

Glu Lys Arg Lys Lys Arg Asp Ile Pro Asp Tyr Leu Cys Gly Lys Ile  
                   260                                  265                                  270

Ser Phe Glu Leu Met Arg Glu Pro Cys Ile Thr Pro Ser Gly Ile Thr  
                   275                                  280                                  285

1490

Tyr Asp Arg Lys Asp Ile Glu Glu His Leu Gln Arg Val Gly His Phe  
 290 295 300  
 Asp Pro Val Thr Arg Ser Pro Leu Thr Gln Glu Gln Leu Ile Pro Asn  
 305 310 315 320  
 Leu Ala Met Lys Glu Val Ile Asp Ala Phe Ile Ser Glu Asn Gly Trp  
 325 330 335  
 Val Glu Asp Tyr  
 340

<210> 1418  
 <211> 235  
 <212> PRT  
 <213> Homo sapiens

<400> 1418  
 Ser Pro Arg Pro Leu Arg Phe Cys Gly Gly Ala Arg Ala Arg Arg Pro  
 1 5 10 15  
 Leu Ser Ala Val Ala Arg Pro Ala Arg Ser Ser Asp Pro Leu Arg Ser  
 20 25 30  
 Ala Pro Leu Gly Pro Ala Pro Pro Val Asn Met Ile Arg Cys Gly Leu  
 35 40 45  
 Ala Cys Glu Arg Cys Arg Trp Ile Leu Pro Leu Leu Leu Ser Ala  
 50 55 60  
 Ile Ala Phe Asp Ile Ile Ala Leu Ala Gly Arg Gly Trp Leu Gln Ser  
 65 70 75 80  
 Ser Asp His Gly Gln Thr Ser Ser Leu Trp Trp Lys Cys Ser Gln Glu  
 85 90 95  
 Gly Gly Gly Ser Gly Ser Tyr Glu Glu Gly Cys Gln Ser Leu Met Glu  
 100 105 110  
 Tyr Ala Trp Gly Arg Ala Ala Ala Ala Met Leu Phe Cys Gly Phe Ile  
 115 120 125  
 Ile Leu Val Ile Cys Phe Ile Leu Ser Phe Phe Ala Leu Cys Gly Pro  
 130 135 140  
 Gln Met Leu Val Phe Leu Arg Val Ile Gly Gly Leu Leu Ala Leu Ala  
 145 150 155 160  
 Ala Val Phe Gln Ile Ile Ser Leu Val Ile Tyr Pro Val Lys Tyr Thr

165								170					175				
Gln	Thr	Phe	Thr	Leu	His	Ala	Asn	Arg	Ala	Val	Thr	Tyr	Ile	Tyr	Asn		
180								185					190				
Trp	Ala	Tyr	Gly	Phe	Gly	Trp	Ala	Ala	Thr	Ile	Ile	Leu	Ile	Gly	Cys		
195								200					205				
Ala	Phe	Phe	Phe	Cys	Cys	Leu	Pro	Asn	Tyr	Glu	Asp	Asp	Leu	Leu	Gly		
210								215					220				
Asn	Ala	Lys	Pro	Arg	Tyr	Phe	Tyr	Thr	Ser	Ala							
225								230					235				

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<210> 1419
<211> 86
<212> PRT
<213> Homo sapiens
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```

<400> 1419
Arg Arg Gln Ala Leu Gln Glu Arg Cys Pro Phe Asn Pro Leu Ser Ala
 1             5             10             15
Leu Asp Arg Arg Cys Cys Val Lys Leu Leu Met Asp Ile Tyr Met Arg
      20             25             30
Ser Ser Phe Leu Tyr Ala Ile Pro Ala Val Phe Phe Phe Leu Thr Gly
      35             40             45
Pro Cys Leu Arg Ile Asn Lys Ser Val Met Ser Glu Thr Lys Val Tyr
      50             55             60
Ser Ser Val Cys Arg Cys Val Ala Pro Pro Phe Ser Pro Ala Ala Pro
      65             70             75             80
His Ile Gln Ser Arg Ser
      85

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```
<210> 1420
<211> 351
<212> PRT
<213> Homo sapiens
```

<400> 1420  
Thr Trp Cys Thr Thr Thr Met Leu Ala Ala Arg Leu Val Cys Leu Arg  
1 5 10 15

1492

Thr Leu Pro Ser Arg Val Phe His Pro Ala Phe Thr Lys Ala Ser Pro  
 20 25 30

Val Val Lys Asn Ser Ile Thr Lys Asn Gln Trp Leu Leu Thr Pro Ser  
 35 40 45

Arg Glu Tyr Ala Thr Lys Thr Arg Ile Gly Ile Arg Arg Gly Arg Thr  
 50 55 60

Gly Gln Glu Leu Lys Glu Ala Ala Leu Glu Pro Ser Met Glu Lys Ile  
 65 70 75 80

Phe Lys Ile Asp Gln Met Gly Arg Trp Phe Val Ala Gly Gly Ala Ala  
 85 90 95

Val Gly Leu Gly Ala Leu Cys Tyr Tyr Gly Leu Gly Leu Ser Asn Glu  
 100 105 110

Ile Gly Ala Ile Glu Lys Ala Val Ile Trp Pro Gln Tyr Val Lys Asp  
 115 120 125

Arg Ile His Ser Thr Tyr Met Tyr Leu Ala Gly Ser Ile Gly Leu Thr  
 130 135 140

Ala Leu Ser Ala Ile Ala Ile Ser Arg Thr Pro Val Leu Met Asn Phe  
 145 150 155 160

Met Met Arg Gly Ser Trp Val Thr Ile Gly Val Thr Phe Ala Ala Met  
 165 170 175

Val Gly Ala Gly Met Leu Val Arg Ser Ile Pro Tyr Asp Gln Ser Pro  
 180 185 190

Gly Pro Lys His Leu Ala Trp Leu Leu His Ser Gly Val Met Gly Ala  
 195 200 205

Val Val Ala Pro Leu Thr Ile Leu Gly Gly Pro Leu Leu Ile Arg Ala  
 210 215 220

Ala Trp Tyr Thr Ala Gly Ile Val Gly Gly Leu Ser Thr Val Ala Met  
 225 230 235 240

Cys Ala Pro Ser Glu Lys Phe Leu Asn Met Gly Ala Pro Leu Gly Val  
 245 250 255

Gly Leu Gly Leu Val Phe Val Ser Ser Leu Gly Ser Met Phe Leu Pro  
 260 265 270

Pro Thr Thr Val Ala Gly Ala Thr Leu Tyr Ser Val Ala Met Tyr Gly  
 275 280 285

1493

Gly Leu Val Leu Phe Ser Met Phe Leu Leu Tyr Asp Thr Gln Lys Val  
 290 295 300

Ile Lys Arg Ala Glu Val Ser Pro Met Tyr Gly Val Gln Lys Tyr Asp  
 305 310 315 320

Pro Ile Asn Ser Met Leu Ser Ile Tyr Met Asp Thr Leu Asn Ile Phe  
 325 330 335

Met Arg Val Ala Thr Met Leu Ala Thr Gly Gly Asn Arg Lys Lys  
 340 345 350

&lt;210&gt; 1421

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1421

Cys Gly Xaa Leu Leu Met Ala Gln Gly Leu Ser Ala Ser Ala Leu Glu  
 1 5 10 15

Gly Leu Lys Thr Glu Glu Gly Ser Val Arg Gly Ala Leu Pro Ala Val  
 20 25 30

Ser Ser Pro Pro Ala Pro Val Ser Pro Ser Ser Pro Thr Thr His Asn  
 35 40 45

Gly Glu Leu Glu Pro Ser Phe Ser Pro Leu Leu Gly Glu Gly Lys Thr  
 50 55 60

Pro Glu Thr Leu Leu Pro Gln Lys Cys Trp Gly Gln Gly Gly Pro Gly  
 65 70 75 80

Arg

&lt;210&gt; 1422

&lt;211&gt; 484

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1422

1494

Ala Cys Arg Ser Thr Leu Val Asp Pro Lys Asn Ser Ala Gln Glu Arg  
 1 5 10 15  
 Arg Ala Leu Gly Pro Leu Pro Pro Cys Ser Phe Ala Leu Gln Leu Gly  
 20 25 30  
 Met Ala Gly Tyr Leu Arg Val Val Arg Ser Leu Cys Arg Ala Ser Gly  
 35 40 45  
 Ser Arg Pro Ala Trp Ala Pro Ala Ala Leu Thr Ala Pro Thr Ser Gln  
 50 55 60  
 Glu Gln Pro Arg Arg His Tyr Ala Asp Lys Arg Ile Lys Val Ala Lys  
 65 70 75 80  
 Pro Val Val Glu Met Asp Gly Asp Glu Met Thr Arg Ile Ile Trp Gln  
 85 90 95  
 Phe Ile Lys Glu Lys Leu Ile Leu Pro His Val Asp Ile Gln Leu Lys  
 100 105 110  
 Tyr Phe Asp Leu Gly Leu Pro Asn Arg Asp Gln Thr Asp Asp Gln Val  
 115 120 125  
 Thr Ile Asp Ser Ala Leu Ala Thr Gln Lys Tyr Ser Val Ala Val Lys  
 130 135 140  
 Cys Ala Thr Ile Thr Pro Asp Glu Ala Arg Val Glu Glu Phe Lys Leu  
 145 150 155 160  
 Lys Lys Met Trp Lys Ser Pro Asn Gly Thr Ile Arg Asn Ile Leu Gly  
 165 170 175  
 Gly Thr Val Phe Arg Glu Pro Ile Ile Cys Lys Asn Ile Pro Arg Leu  
 180 185 190  
 Val Pro Gly Trp Thr Lys Pro Ile Thr Ile Gly Arg His Ala His Gly  
 195 200 205  
 Asp Gln Tyr Lys Ala Thr Asp Phe Val Ala Asp Arg Ala Gly Thr Phe  
 210 215 220  
 Lys Met Val Phe Thr Pro Lys Asp Gly Ser Gly Val Lys Glu Trp Glu  
 225 230 235 240  
 Val Tyr Asn Phe Pro Ala Gly Gly Val Gly Met Gly Met Tyr Asn Thr  
 245 250 255  
 Asp Glu Ser Ile Ser Gly Phe Ala His Ser Cys Phe Gln Tyr Ala Ile  
 260 265 270

1495

Gln Lys Lys Trp Pro Leu Tyr Met Ser Thr Lys Asn Thr Ile Leu Lys  
           275                                  280                                  285  
 Ala Tyr Asp Gly Arg Phe Lys Asp Ile Phe Gln Glu Ile Phe Asp Lys  
           290                                  295                                  300  
 His Tyr Lys Thr Asp Phe Asp Lys Asn Lys Ile Trp Tyr Glu His Arg  
 305                                  310                                  315                                  320  
 Leu Ile Asp Asp Met Val Ala Gln Val Leu Lys Ser Ser Gly Gly Phe  
                                   325                                  330                                  335  
 Val Trp Ala Cys Lys Asn Tyr Asp Gly Asp Val Gln Ser Asp Ile Leu  
                                   340                                  345                                  350  
 Ala Gln Gly Phe Gly Ser Leu Gly Leu Met Thr Ser Val Leu Val Cys  
           355                                  360                                  365  
 Pro Asp Gly Lys Thr Ile Glu Ala Glu Ala Ala His Gly Thr Val Thr  
           370                                  375                                  380  
 Arg His Tyr Arg Glu His Gln Lys Gly Arg Pro Thr Ser Thr Asn Pro  
 385                                  390                                  395                                  400  
 Ile Ala Ser Ile Phe Ala Trp Thr Arg Gly Leu Glu His Arg Gly Lys  
                                   405                                  410                                  415  
 Leu Asp Gly Asn Gln Asp Leu Ile Arg Phe Ala Gln Met Leu Glu Lys  
                                   420                                  425                                  430  
 Val Cys Val Glu Thr Val Glu Ser Gly Ala Met Thr Lys Asp Leu Ala  
           435                                  440                                  445  
 Gly Cys Ile His Gly Leu Ser Asn Val Lys Leu Asn Glu His Phe Leu  
           450                                  455                                  460  
 Asn Thr Thr Asp Phe Leu Asp Thr Ile Lys Ser Asn Leu Asp Arg Ala  
 465                                  470                                  475                                  480  
 Leu Gly Arg Gln

&lt;210&gt; 1423

&lt;211&gt; 240

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1496

&lt;222&gt; (153)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1423

Val	Arg	Ile	Pro	Gly	Ser	Thr	His	Ala	Ser	Gly	Gly	Gly	Asp	Gly	Asp
1				5					10					15	
Met	Glu	Ser	Gly	Ala	Tyr	Gly	Ala	Ala	Lys	Ala	Gly	Gly	Ser	Phe	Asp
			20					25					30		
Leu	Arg	Arg	Phe	Leu	Thr	Gln	Pro	Gln	Val	Val	Ala	Arg	Ala	Val	Cys
			35					40				45			
Leu	Val	Phe	Ala	Leu	Ile	Val	Phe	Ser	Cys	Ile	Tyr	Gly	Glu	Gly	Tyr
	50					55					60				
Ser	Asn	Ala	His	Glu	Ser	Lys	Gln	Met	Tyr	Cys	Val	Phe	Asn	Arg	Asn
	65				70					75				80	
Glu	Asp	Ala	Cys	Arg	Tyr	Gly	Ser	Ala	Ile	Gly	Val	Leu	Ala	Phe	Leu
			85						90					95	
Ala	Ser	Ala	Phe	Phe	Leu	Val	Val	Asp	Ala	Tyr	Phe	Pro	Gln	Ile	Ser
			100					105					110		
Asn	Ala	Thr	Asp	Arg	Lys	Tyr	Leu	Val	Ile	Gly	Asp	Leu	Leu	Phe	Ser
		115					120					125			
Ala	Leu	Trp	Thr	Phe	Leu	Trp	Phe	Val	Gly	Phe	Cys	Phe	Leu	Thr	Asn
	130					135					140				
Gln	Trp	Ala	Val	Thr	Asn	Pro	Lys	Xaa	Val	Leu	Val	Gly	Ala	Asp	Ser
145					150					155				160	
Val	Arg	Ala	Ala	Ile	Thr	Phe	Ser	Phe	Phe	Ser	Ile	Phe	Ser	Trp	Gly
			165						170					175	
Val	Leu	Ala	Ser	Leu	Ala	Tyr	Gln	Arg	Tyr	Lys	Ala	Gly	Val	Asp	Asp
		180						185					190		
Phe	Ile	Gln	Asn	Tyr	Val	Asp	Pro	Thr	Pro	Asp	Pro	Asn	Thr	Ala	Tyr
		195					200					205			
Ala	Ser	Tyr	Pro	Gly	Ala	Ser	Val	Asp	Asn	Tyr	Gln	Gln	Pro	Pro	Phe
	210					215					220				
Thr	Gln	Asn	Ala	Glu	Thr	Thr	Glu	Gly	Tyr	Gln	Pro	Pro	Pro	Val	Tyr
225					230					235				240	



1497

&lt;210&gt; 1424

&lt;211&gt; 244

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (221)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1424

Arg	Val	Arg	Arg	Gln	Ser	Ser	Gly	Asn	Leu	Thr	Met	Ala	Trp	Thr	Pro
1				5					10					15	

Leu	Leu	Leu	Pro	Leu	Leu	Thr	Phe	Cys	Thr	Val	Ser	Glu	Ala	Ser	Tyr
			20					25					30		

Glu	Leu	Thr	Gln	Pro	Pro	Ser	Val	Ser	Val	Ser	Pro	Gly	Gln	Thr	Ala
		35					40					45			

Arg	Ile	Thr	Cys	Ser	Gly	Asp	Ala	Leu	Pro	Xaa	Lys	Tyr	Xaa	Tyr	Trp
	50					55					60				

Tyr	Gln	Gln	Lys	Ser	Gly	Gln	Ala	Pro	Val	Leu	Val	Ile	Tyr	Glu	Asp
65					70				75					80	

Thr	Arg	Arg	Pro	Ser	Ala	Ile	Pro	Glu	Arg	Phe	Ser	Ala	Ser	Ser	Ser
			85					90					95		

Gly	Thr	Met	Ala	Thr	Leu	Thr	Ile	Ser	Gly	Ala	Gln	Val	Glu	Asp	Glu
		100					105					110			

Ala	Asp	Tyr	Tyr	Cys	Tyr	Ser	Thr	Asp	Ser	Ser	Ser	Tyr	Tyr	Arg	Val
	115						120					125			

Phe	Gly	Gly	Gly	Thr	Lys	Leu	Thr	Val	Leu	Gly	Gln	Pro	Lys	Ala	Ala
	130					135					140				

1498

Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn  
145 150 155 160

Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val  
165 170 175

Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu  
180 185 190

Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser  
195 200 205

Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Xaa Ser Tyr Ser  
210 215 220

Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro  
225 230 235 240

Thr Glu Cys Ser

&lt;210&gt; 1425

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (115)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (137)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (159)

1499

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1425

Xaa Val Arg Val Gln Thr Arg Gly Ser Ala Asp Pro Ala Gln Leu Arg  
 1 5 10 15  
 Arg His Pro Gly Tyr Lys Arg Thr Ala Ser Ala Thr Leu Ser Asp Pro  
 20 25 30  
 Ala Ala Ala Ala Met Gln Pro Ser Ser Leu Leu Pro Leu Ala Leu Cys  
 35 40 45  
 Leu Leu Ala Ala Pro Ala Ser Ala Leu Val Arg Ile Pro Leu His Lys  
 50 55 60  
 Phe Thr Ser Ile Arg Arg Thr Met Ser Glu Val Gly Gly Ser Val Glu  
 65 70 75 80  
 Asp Leu Ile Ala Lys Gly Pro Val Ser Lys Tyr Ser Gln Ala Val Pro  
 85 90 95  
 Ala Val Thr Glu Gly Pro Ile Pro Glu Val Leu Lys Asn Tyr Met Asp  
 100 105 110  
 Ala Gln Xaa Tyr Gly Glu Ile Gly Ile Gly Thr Pro Pro Gln Cys Phe  
 115 120 125  
 Thr Val Val Phe Asp Thr Gly Xaa Xaa Asn Leu Trp Val Pro Ser Ile  
 130 135 140  
 His Cys Lys Leu Leu Asp Ile Ala Cys Trp Ile His His Lys Xaa Asn  
 145 150 155 160  
 Ser Asp Lys Ser Ser Asn Tyr Val Lys Asn Gly Asn Ser  
 165 170

&lt;210&gt; 1426

&lt;211&gt; 351

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1426

Ile Arg His Glu Ile Leu Trp Leu Leu Cys Ser His Arg Pro Ala Pro  
 1 5 10 15

1500

Gly Arg Pro Pro Thr His Asn Ala His Asn Trp Arg Leu Gly Gln Ala  
                   20                  25                  30

Pro Ala Xaa Trp Tyr Asn Asp Thr Tyr Pro Leu Ser Pro Pro Gln Arg  
                   35                  40                  45

Thr Pro Ala Gly Ile Arg Tyr Arg Ile Ala Val Ile Ala Asp Leu Asp  
                   50                  55                  60

Thr Glu Ser Arg Ala Gln Glu Glu Asn Thr Trp Phe Ser Tyr Leu Lys  
                   65                  70                  75                  80

Lys Gly Tyr Leu Thr Leu Ser Asp Ser Gly Asp Lys Val Ala Val Glu  
                                   85                  90                  95

Trp Asp Lys Asp His Gly Val Leu Glu Ser His Leu Ala Glu Lys Gly  
                   100                  105                  110

Arg Gly Met Glu Leu Ser Asp Leu Ile Val Phe Asn Gly Lys Leu Tyr  
                   115                  120                  125

Ser Val Asp Asp Arg Thr Gly Val Val Tyr Gln Ile Glu Gly Ser Lys  
                   130                  135                  140

Ala Val Pro Trp Val Ile Leu Ser Asp Gly Asp Gly Thr Val Glu Lys  
                   145                  150                  155                  160

Gly Phe Lys Ala Glu Trp Leu Ala Val Lys Asp Glu Arg Leu Tyr Val  
                                   165                  170                  175

Gly Gly Leu Gly Lys Glu Trp Thr Thr Thr Thr Gly Asp Val Val Asn  
                   180                  185                  190

Glu Asn Pro Glu Trp Val Lys Val Val Gly Tyr Lys Gly Ser Val Asp  
                   195                  200                  205

His Glu Asn Trp Val Ser Asn Tyr Asn Ala Leu Arg Ala Ala Ala Gly  
                   210                  215                  220

Ile Gln Pro Pro Gly Tyr Leu Ile His Glu Ser Ala Cys Trp Ser Asp  
                   225                  230                  235                  240

Thr Leu Gln Arg Trp Phe Phe Leu Pro Arg Arg Ala Ser Gln Glu Arg  
                                   245                  250                  255

Tyr Ser Glu Lys Asp Asp Glu Arg Lys Gly Ala Asn Leu Leu Leu Ser  
                   260                  265                  270

Ala Ser Pro Asp Phe Gly Asp Ile Ala Val Ser His Val Gly Ala Val  
                   275                  280                  285

1501

Val Pro Thr His Gly Phe Ser Ser Phe Lys Phe Ile Pro Asn Thr Asp  
 290 295 300

Asp Gln Ile Ile Val Ala Leu Lys Ser Glu Glu Asp Ser Gly Arg Val  
 305 310 315 320

Ala Ser Tyr Ile Met Ala Phe Thr Leu Asp Gly Arg Phe Leu Leu Pro  
 325 330 335

Glu Thr Lys Ile Gly Ser Val Lys Tyr Glu Gly Ile Glu Phe Ile  
 340 345 350

<210> 1427

<211> 510

<212> PRT

<213> Homo sapiens

<400> 1427

Glu Arg Ser Trp Phe Ala Gln Val Arg Arg Leu Gly Pro His Gly Ala  
 1 5 10 15

Val Ala Arg Leu Arg Val Arg Gly Leu Pro Gly Ala Gly Arg Gly Leu  
 20 25 30

Arg Leu Pro Ala Gly Ala Arg Ala Ala Arg Leu Gly Ala Ala Leu Ser  
 35 40 45

Leu Glu Leu Ala Val Ser Gly Ala Arg Ala Cys Ala Pro Gly Thr Arg  
 50 55 60

Leu Pro Arg Gly Pro Val Gly Gly Ser Trp Asp Ala Leu Ile Val Arg  
 65 70 75 80

Pro Val Arg Arg Trp Arg Arg Val Ala Val Gly Val Asn Ala Cys Val  
 85 90 95

Asp Val Val Leu Ser Gly Val Lys Leu Leu Gln Ala Leu Gly Leu Ser  
 100 105 110

Pro Gly Asn Gly Lys Asp His Ser Ile Leu His Ser Arg Asn Asp Leu  
 115 120 125

Glu Glu Ala Phe Ile His Phe Met Gly Lys Gly Ala Ala Ala Glu Arg  
 130 135 140

Phe Phe Ser Asp Lys Glu Thr Phe His Asp Ile Ala Gln Val Ala Ser  
 145 150 155 160

1502

Glu Phe Pro Gly Ala Gln His Tyr Val Gly Gly Asn Ala Ala Leu Ile  
                   165                  170                  175

Gly Gln Lys Phe Ala Ala Asn Ser Asp Leu Lys Val Leu Leu Cys Gly  
                   180                  185                  190

Pro Val Gly Pro Lys Leu His Glu Leu Leu Asp Asp Asn Val Phe Val  
                   195                  200                  205

Pro Pro Glu Ser Leu Gln Glu Val Asp Glu Phe His Leu Ile Leu Glu  
                   210                  215                  220

Tyr Gln Ala Gly Glu Glu Trp Gly Gln Leu Lys Ala Pro His Ala Asn  
 225                                  230                  235                  240

Arg Phe Ile Phe Ser His Asp Leu Ser Asn Gly Ala Met Asn Met Leu  
                   245                  250                  255

Glu Val Phe Val Ser Ser Leu Glu Glu Phe Gln Pro Asp Leu Val Val  
                   260                  265                  270

Leu Ser Gly Leu His Met Met Glu Gly Gln Ser Lys Glu Leu Gln Arg  
                   275                  280                  285

Lys Arg Leu Leu Glu Val Val Thr Ser Ile Ser Asp Ile Pro Thr Gly  
                   290                  295                  300

Ile Pro Val His Leu Glu Leu Ala Ser Met Thr Asn Arg Glu Leu Met  
 305                                  310                  315                  320

Ser Ser Ile Val His Gln Gln Val Phe Pro Ala Val Thr Ser Leu Gly  
                   325                  330                  335

Leu Asn Glu Gln Glu Leu Leu Phe Leu Thr Gln Ser Ala Ser Gly Pro  
                   340                  345                  350

His Ser Ser Leu Ser Ser Trp Asn Gly Val Pro Asp Val Gly Met Val  
                   355                  360                  365

Ser Asp Ile Leu Phe Trp Ile Leu Lys Glu His Gly Arg Ser Lys Ser  
                   370                  375                  380

Arg Ala Ser Asp Leu Thr Arg Ile His Phe His Thr Leu Val Tyr His  
 385                                  390                  395                  400

Ile Leu Ala Thr Val Asp Gly His Trp Ala Asn Gln Leu Ala Ala Val  
                   405                  410                  415

Ala Ala Gly Ala Arg Val Ala Gly Thr Gln Ala Cys Ala Thr Glu Thr  
                   420                  425                  430

1503

Ile Asp Thr Ser Arg Val Ser Leu Arg Ala Pro Gln Glu Phe Met Thr  
 435 440 445

Ser His Ser Glu Ala Gly Ser Arg Ile Val Leu Asn Pro Asn Lys Pro  
 450 455 460

Val Val Glu Trp His Arg Glu Gly Ile Ser Phe His Phe Thr Pro Val  
 465 470 475 480

Leu Val Cys Lys Asp Pro Ile Arg Thr Val Gly Leu Gly Asp Ala Ile  
 485 490 495

Ser Ala Glu Gly Leu Phe Tyr Ser Glu Val His Pro His Tyr  
 500 505 510

&lt;210&gt; 1428

&lt;211&gt; 316

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1428

Pro Pro Leu Pro Pro Arg Ser Phe Pro Asn Leu Phe Ser Arg Pro Glu  
 1 5 10 15

Pro Leu Pro Glu Pro Gly Arg Arg Gly Cys Asn Arg Ser Arg Glu Pro  
 20 25 30

Ala Ala Arg Ala Pro Ser Pro Pro Pro Phe Glu Gly Ala Pro Gly  
 35 40 45

Arg Ala Met Val Lys Val Thr Phe Asn Ser Ala Leu Ala Gln Lys Glu  
 50 55 60

Ala Lys Lys Asp Glu Pro Lys Ser Gly Glu Glu Ala Leu Ile Ile Pro  
 65 70 75 80

Pro Asp Ala Val Ala Val Asp Cys Lys Asp Pro Asp Asp Val Val Pro  
 85 90 95

Val Gly Gln Arg Arg Ala Trp Cys Trp Cys Met Cys Phe Gly Leu Ala  
 100 105 110

Phe Met Leu Ala Gly Val Ile Leu Gly Gly Ala Tyr Leu Tyr Lys Tyr  
 115 120 125

Phe Ala Leu Gln Pro Asp Asp Val Tyr Tyr Cys Gly Ile Lys Tyr Ile  
 130 135 140

Lys Asp Asp Val Ile Leu Asn Glu Pro Ser Ala Asp Ala Pro Ala Ala

1504

145                      150                      155                      160  
 Leu Tyr Gln Thr Ile Glu Glu Asn Ile Lys Ile Phe Glu Glu Glu Glu  
                                  165                      170                      175  
 Val Glu Phe Ile Ser Val Pro Val Pro Glu Phe Ala Asp Ser Asp Pro  
                                  180                      185                      190  
 Ala Asn Ile Val His Asp Phe Asn Lys Lys Leu Thr Ala Tyr Leu Asp  
                                  195                      200                      205  
 Leu Asn Leu Asp Lys Cys Tyr Val Ile Pro Leu Asn Thr Ser Ile Val  
                                  210                      215                      220  
 Met Pro Pro Arg Asn Leu Leu Glu Leu Leu Ile Asn Ile Lys Ala Gly  
 225                                   230                      235                      240  
 Thr Tyr Leu Pro Gln Ser Tyr Leu Ile His Glu His Met Val Ile Thr  
                                  245                      250                      255  
 Asp Arg Ile Glu Asn Ile Asp His Leu Gly Phe Phe Ile Tyr Arg Leu  
                                  260                      265                      270  
 Cys His Asp Lys Glu Thr Tyr Lys Leu Gln Arg Arg Glu Thr Ile Lys  
                                  275                      280                      285  
 Gly Ile Gln Lys Arg Glu Ala Ser Asn Cys Phe Ala Ile Arg His Phe  
                                  290                      295                      300  
 Glu Asn Lys Phe Ala Val Glu Thr Leu Ile Cys Ser  
 305                                   310                      315

&lt;210&gt; 1429

&lt;211&gt; 398

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1429

His Thr Arg Val Asp Phe Asn Val Pro Met Lys Asn Asn Gln Ile Thr  
   1                      5                      10                      15  
 Asn Asn Gln Arg Ile Lys Ala Ala Val Pro Ser Ile Lys Phe Cys Leu  
                                  20                      25                      30  
 Asp Asn Gly Ala Lys Ser Val Val Leu Met Ser His Leu Gly Arg Pro  
                                  35                      40                      45  
 Asp Gly Val Pro Met Pro Asp Lys Tyr Ser Leu Glu Pro Val Ala Val  
                                  50                      55                      60



1505

Glu Leu Lys Ser Leu Leu Gly Lys Asp Val Leu Phe Leu Lys Asp Cys  
 65 70 75 80  
 Val Gly Pro Glu Val Glu Lys Ala Cys Ala Asn Pro Ala Ala Gly Ser  
 85 90 95  
 Val Ile Leu Leu Glu Asn Leu Arg Phe His Val Glu Glu Glu Gly Lys  
 100 105 110  
 Gly Lys Asp Ala Ser Gly Asn Lys Val Lys Ala Glu Pro Ala Lys Ile  
 115 120 125  
 Glu Ala Phe Arg Ala Ser Leu Ser Lys Leu Gly Asp Val Tyr Val Asn  
 130 135 140  
 Asp Ala Phe Gly Thr Ala His Arg Ala His Ser Ser Met Val Gly Val  
 145 150 155 160  
 Asn Leu Pro Gln Lys Ala Gly Gly Phe Leu Met Lys Lys Glu Leu Asn  
 165 170 175  
 Tyr Phe Ala Lys Ala Leu Glu Ser Pro Glu Arg Pro Phe Leu Ala Ile  
 180 185 190  
 Leu Gly Gly Ala Lys Val Ala Asp Lys Ile Gln Leu Ile Asn Asn Met  
 195 200 205  
 Leu Asp Lys Val Asn Glu Met Ile Ile Gly Gly Gly Met Ala Phe Thr  
 210 215 220  
 Phe Leu Lys Val Leu Asn Asn Met Glu Ile Gly Thr Ser Leu Phe Asp  
 225 230 235 240  
 Glu Glu Gly Ala Lys Ile Val Lys Asp Leu Met Ser Lys Ala Glu Lys  
 245 250 255  
 Asn Gly Val Lys Ile Thr Leu Pro Val Asp Phe Val Thr Ala Asp Lys  
 260 265 270  
 Phe Asp Glu Asn Ala Lys Thr Gly Gln Ala Thr Val Ala Ser Gly Ile  
 275 280 285  
 Pro Ala Gly Trp Met Gly Leu Asp Cys Gly Pro Glu Ser Ser Lys Lys  
 290 295 300  
 Tyr Ala Glu Ala Val Thr Arg Ala Lys Gln Ile Val Trp Asn Gly Pro  
 305 310 315 320  
 Val Gly Val Phe Glu Trp Glu Ala Phe Ala Arg Gly Thr Lys Ala Leu  
 325 330 335

1506

Met Asp Glu Val Val Lys Ala Thr Ser Arg Gly Cys Ile Thr Ile Ile  
 340 345 350

Gly Gly Gly Asp Thr Ala Thr Cys Cys Ala Lys Trp Asn Thr Glu Asp  
 355 360 365

Lys Val Ser His Val Ser Thr Gly Gly Gly Ala Ser Leu Glu Leu Leu  
 370 375 380

Glu Gly Lys Val Leu Pro Gly Val Asp Ala Leu Ser Asn Ile  
 385 390 395

<210> 1430

<211> 249

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (245)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1430

Pro Ala Met Gly Ala Ala Val Phe Phe Gly Cys Thr Phe Val Ala Phe  
 1 5 10 15

Gly Pro Ala Phe Ala Leu Phe Leu Ile Thr Val Ala Gly Asp Pro Leu  
 20 25 30

Arg Val Ile Ile Leu Val Ala Gly Ala Phe Phe Trp Leu Val Ser Leu  
 35 40 45

Leu Leu Ala Ser Val Val Trp Phe Ile Leu Val His Val Thr Asp Arg  
 50 55 60

Ser Asp Ala Arg Leu Gln Tyr Gly Leu Leu Ile Phe Gly Ala Ala Val  
 65 70 75 80

Ser Val Leu Leu Gln Glu Val Phe Arg Phe Ala Tyr Tyr Lys Leu Leu  
 85 90 95

Lys Lys Ala Asp Glu Gly Leu Ala Ser Leu Ser Glu Asp Gly Arg Ser  
 100 105 110

Pro Ile Ser Ile Arg Gln Met Ala Tyr Val Ser Gly Leu Ser Phe Gly  
 115 120 125

Ile Ile Ser Gly Val Phe Ser Val Ile Asn Ile Leu Ala Asp Ala Leu

1507

130	135	140
Gly Pro Gly Val Val Gly Ile His Gly Asp Ser Pro Tyr Tyr Phe Leu		
145	150	155 160
Thr Ser Ala Phe Leu Thr Ala Ala Ile Ile Leu Leu His Thr Phe Trp		
	165	170 175
Gly Val Val Phe Phe Asp Ala Cys Glu Arg Arg Arg Tyr Trp Ala Leu		
	180	185 190
Gly Leu Val Val Gly Ser His Leu Leu Thr Ser Gly Leu Thr Phe Leu		
	195	200 205
Asn Pro Trp Tyr Glu Ala Ser Leu Leu Pro Ile Tyr Ala Val Thr Val		
	210	215 220
Ser Met Gly Leu Trp Ala Phe Ile Thr Ala Gly Gly Ser Leu Arg Ser		
	225	230 235 240
Ile Gln Arg Ser Xaa Leu Cys Lys Asp		
	245	

&lt;210&gt; 1431

&lt;211&gt; 271

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1431

Arg Pro Thr Arg Pro Val Met Ala Pro Arg Ser Leu Leu Leu Leu Leu			
1	5	10	15
Ser Gly Ala Leu Ala Leu Thr Asp Thr Trp Ala Gly Ser His Ser Leu			
	20	25	30
Arg Tyr Phe Ser Thr Ala Val Ser Arg Pro Gly Arg Gly Glu Pro Arg			
	35	40	45
Tyr Ile Ala Val Glu Tyr Val Asp Asp Thr Gln Phe Leu Arg Phe Asp			
	50	55	60
Ser Asp Ala Ala Ile Pro Arg Met Glu Pro Arg Glu Pro Trp Val Glu			
	65	70	75 80
Gln Glu Gly Pro Gln Tyr Trp Glu Trp Thr Thr Gly Tyr Ala Lys Ala			
	85	90	95
Asn Ala Gln Thr Asp Arg Val Ala Leu Arg Asn Leu Leu Arg Arg Tyr			
	100	105	110

1508

Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln Gly Met Asn Gly Cys  
 115 120 125

Asp Met Gly Pro Asp Gly Arg Leu Leu Arg Gly Tyr His Gln His Ala  
 130 135 140

Tyr Asp Gly Lys Asp Tyr Ile Ser Leu Asn Glu Asp Leu Arg Ser Trp  
 145 150 155 160

Thr Ala Ala Asp Thr Val Ala Gln Ile Thr Gln Arg Phe Tyr Glu Ala  
 165 170 175

Glu Glu Tyr Ala Glu Glu Phe Arg Thr Tyr Leu Glu Gly Glu Cys Leu  
 180 185 190

Glu Leu Leu Arg Arg Tyr Leu Glu Asn Gly Lys Glu Thr Leu Gln Arg  
 195 200 205

Ala Asp Pro Pro Lys Ala His Val Ala His His Pro Ile Ser Asp His  
 210 215 220

Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile  
 225 230 235 240

Thr Leu Thr Trp Gln Arg Asp Gly Glu Glu Gln Thr Gln Asp Thr Glu  
 245 250 255

Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Arg Ser Gly  
 260 265 270

&lt;210&gt; 1432

&lt;211&gt; 455

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1432

Ala His Ala Ser Gly Ala Pro Glu Gln Arg Pro Arg Pro Pro Arg Leu  
 1 5 10 15

Leu Arg Arg Asp Leu Glu Arg Lys Thr Pro Ala Arg Arg Pro Ala Leu  
 20 25 30

Ala Ser Leu Pro Thr Gly His Thr Ala Pro Pro Pro Arg Pro Arg Cys  
 35 40 45

Ala Arg Pro Val Arg Cys Thr Pro Ala Cys Trp Arg Leu Arg Arg Arg  
 50 55 60

1509

Ala Arg Pro Gly Leu Leu Leu Arg Ala Thr Met Ser Ser Arg Ile Ala  
 65 70 75 80

Arg Ala Leu Ala Leu Val Val Thr Leu Leu His Leu Thr Arg Leu Ala  
 85 90 95

Leu Ser Thr Cys Pro Ala Ala Cys His Cys Pro Leu Glu Ala Pro Lys  
 100 105 110

Cys Ala Pro Gly Val Gly Leu Val Arg Asp Gly Cys Gly Cys Cys Lys  
 115 120 125

Val Cys Ala Lys Gln Leu Asn Glu Asp Cys Ser Lys Thr Gln Pro Cys  
 130 135 140

Asp His Thr Lys Gly Leu Glu Cys Asn Phe Gly Ala Ser Ser Thr Ala  
 145 150 155 160

Leu Lys Gly Ile Cys Arg Ala Gln Ser Glu Gly Arg Pro Cys Glu Tyr  
 165 170 175

Asn Ser Arg Ile Tyr Gln Asn Gly Glu Ser Phe Gln Pro Asn Cys Lys  
 180 185 190

His Gln Cys Thr Cys Ile Asp Gly Ala Val Gly Cys Ile Pro Leu Cys  
 195 200 205

Pro Gln Glu Leu Ser Leu Pro Asn Leu Gly Cys Pro Asn Pro Arg Leu  
 210 215 220

Val Lys Val Thr Gly Gln Cys Cys Glu Glu Trp Val Cys Asp Glu Asp  
 225 230 235 240

Ser Ile Lys Asp Pro Met Glu Asp Gln Asp Gly Leu Leu Gly Lys Glu  
 245 250 255

Leu Gly Phe Asp Ala Ser Glu Val Glu Leu Thr Arg Asn Asn Glu Leu  
 260 265 270

Ile Ala Val Gly Lys Gly Ser Ser Leu Lys Arg Leu Pro Val Phe Gly  
 275 280 285

Met Glu Pro Arg Ile Leu Tyr Asn Pro Leu Gln Gly Gln Lys Cys Ile  
 290 295 300

Val Gln Thr Thr Ser Trp Ser Gln Cys Ser Lys Thr Cys Gly Thr Gly  
 305 310 315 320

Ile Ser Thr Arg Val Thr Asn Asp Asn Pro Glu Cys Arg Leu Val Lys  
 325 330 335

1510

Glu Thr Arg Ile Cys Glu Val Arg Pro Cys Gly Gln Pro Val Tyr Ser  
                   340                  345                  350  
 Ser Leu Lys Lys Gly Lys Lys Cys Ser Lys Thr Lys Lys Ser Pro Glu  
                   355                  360                  365  
 Pro Val Arg Phe Thr Tyr Ala Gly Cys Leu Ser Val Lys Lys Tyr Arg  
                   370                  375                  380  
 Pro Lys Tyr Cys Gly Ser Cys Val Asp Gly Arg Cys Cys Thr Pro Gln  
                   385                  390                  395                  400  
 Leu Thr Arg Thr Val Lys Met Arg Phe Arg Cys Glu Asp Gly Glu Thr  
                   405                  410                  415  
 Phe Ser Lys Asn Val Met Met Ile Gln Ser Cys Lys Cys Asn Tyr Asn  
                   420                  425                  430  
 Cys Pro His Ala Asn Glu Ala Ala Phe Pro Phe Tyr Arg Leu Phe Asn  
                   435                  440                  445  
 Asp Ile His Lys Phe Arg Asp  
                   450                  455

&lt;210&gt; 1433

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1433

Thr Glu Gly Glu Thr Trp Arg Ser Asp Ser Glu Val Arg Leu Gln Leu  
   1                  5                  10                  15  
 Ala His His Leu Arg Pro Gly Pro Asp Glu Pro Pro Val Ala Ser Ala  
                   20                  25                  30  
 Gly Ala Ala Ala Ala Ser Arg Gly Ala Cys Gly Pro Ser His Ser Arg  
                   35                  40                  45  
 His Cys Leu Pro Ala Gly Leu Glu Pro Ser Glu Arg Pro Asn Pro Arg  
                   50                  55                  60  
 Pro Gly Arg Asp Leu Arg Gly Met Thr Ala Glu Pro Pro Lys Gly Gly  
                   65                  70                  75                  80  
 Glu Phe Glu Gly Arg Gly Pro  
                   85

1511

&lt;210&gt; 1434

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1434

Val Trp Arg Ala Gly Ala Gly Met Ala Ser Leu Arg Ser Gln His Gly  
1 5 10 15  
Pro Gly Ala Pro Glu Ser Leu Arg Lys Val Leu Met Pro Ser Ser Met  
20 25 30  
Gly Leu Leu Leu Ile Leu Tyr Ala Arg Leu Pro Pro Ser Leu Val Gly  
35 40 45  
Gln Ala Gly Arg Trp Ile Gly Trp Ala Gly Arg Ala Gly Gly Gln Ala  
50 55 60  
Val Arg Gln Pro Ser Pro Thr Val Leu Ile Asp Gly Val Glu Cys Ser  
65 70 75 80  
Asp Val Lys Phe Phe Gln Leu Ala Ala Gln Trp Ser Ser His Val Lys  
85 90 95  
His Phe Pro Ile Cys Ile Phe Gly His Ser Lys Ala Thr Phe  
100 105 110

&lt;210&gt; 1435

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1435

Gly Ser Gln Asp Ala Arg Arg Gly Ser Gly Leu Gly Val Ser Ser Phe  
1 5 10 15  
Leu Arg Gly Ser Gly Gly Ser Gly Pro Leu Trp Val Gln His Gly Lys  
20 25 30  
Arg Gly Arg Tyr Phe Ser Ser Trp Ala Phe Ile Lys Glu Lys Thr Met  
35 40 45  
Leu Ala Gly Arg Gly Gly Ser Arg Leu Gln Ser Gln His Phe Gly Arg  
50 55 60  
Pro Arg Arg Val Asp His Leu Arg Ser Gly Val Gln Asp Gln Pro Gly  
65 70 75 80

1512

Gln His Gly Glu Thr Pro Ser Leu Leu Lys Asn Thr Lys Ile Ser Gln  
                             85                            90                            95

Val Trp Trp Leu Thr Leu Met  
                             100

&lt;210&gt; 1436

&lt;211&gt; 413

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1436

Asn Glu Cys Thr Gly Pro Glu Phe Arg Val Asp Pro Arg Val Ala Ser  
   1                            5                            10                            15

Ala Pro Arg Ala Gln Ser Leu Ala Phe Ala Asp Pro Pro Pro Val His  
                             20                            25                            30

Thr Arg Arg Gln Leu Thr Met Asp Asp Asp Ile Ala Ala Leu Val Val  
                             35                            40                            45

Asp Asn Gly Ser Gly Met Cys Lys Ala Gly Phe Ala Gly Asp Asp Ala  
                             50                            55                            60

Pro Arg Ala Val Phe Pro Ser Ile Val Gly Arg Pro Arg His Gln Gly  
   65                            70                            75                            80

Val Met Val Gly Met Gly Gln Lys Asp Ser Tyr Val Gly Asp Glu Ala  
                             85                            90                            95

Gln Ser Lys Arg Gly Ile Leu Thr Leu Lys Tyr Pro Ile Glu His Gly  
                             100                            105                            110

Ile Val Thr Asn Trp Asp Asp Met Glu Lys Ile Trp His His Thr Phe  
                             115                            120                            125

Tyr Asn Glu Leu Arg Val Ala Pro Glu Glu His Pro Val Leu Leu Thr  
                             130                            135                            140

Glu Ala Pro Leu Asn Pro Lys Ala Asn Arg Glu Lys Met Thr Gln Ile  
   145                            150                            155                            160

Met Phe Glu Thr Phe Asn Thr Pro Ala Met Tyr Val Ala Ile Gln Ala  
                             165                            170                            175

Val Leu Ser Leu Tyr Ala Ser Gly Arg Thr Thr Gly Ile Val Met Asp  
                             180                            185                            190

Ser Gly Asp Gly Val Thr His Thr Val Pro Ile Tyr Glu Gly Tyr Ala



1513

195	200	205
Leu Pro His Ala Ile Leu Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr		
210	215	220
Asp Tyr Leu Met Lys Ile Leu Thr Glu Arg Gly Tyr Ser Phe Thr Thr		
225	230	235 240
Thr Ala Glu Arg Glu Ile Val Arg Asp Ile Lys Glu Lys Leu Cys Tyr		
245	250	255
Val Ala Leu Asp Phe Glu Gln Glu Met Ala Thr Ala Ala Ser Ser Ser		
260	265	270
Ser Leu Glu Lys Ser Tyr Glu Leu Pro Asp Gly Gln Val Ile Thr Ile		
275	280	285
Gly Asn Glu Arg Phe Arg Cys Pro Glu Ala Leu Phe Gln Pro Ser Phe		
290	295	300
Leu Gly Met Glu Ser Cys Gly Ile His Glu Thr Thr Phe Asn Ser Ile		
305	310	315 320
Met Lys Cys Asp Val Asp Ile Arg Lys Asp Leu Tyr Ala Asn Thr Val		
325	330	335
Leu Ser Gly Gly Thr Thr Met Tyr Pro Gly Ile Ala Asp Arg Met Gln		
340	345	350
Lys Glu Ile Thr Ala Leu Ala Pro Ser Thr Met Lys Ile Lys Ile Ile		
355	360	365
Ala Pro Pro Glu Arg Lys Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu		
370	375	380
Ala Ser Leu Ser Thr Phe Gln Gln Met Trp Ile Ser Lys Gln Glu Tyr		
385	390	395 400
Asp Glu Ser Gly Pro Ser Ile Val His Arg Lys Cys Phe		
405	410	

&lt;210&gt; 1437

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

1514

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1437

Val Val Pro Ser Thr Lys Asp Phe Leu Val Gly Val Lys Gly Ser Gly  
 1 5 10 15

Gly His Arg Gly Gly Gly Glu Met Ala Phe Ser Xaa Ser Gln Ala Pro  
 20 25 30

Tyr Leu Ser Pro Ala Val Pro Phe Ser Gly Thr Ile Gln Gly Gly Leu  
 35 40 45

Gln Asp Gly Leu Gln Ile Thr Val Asn Gly Thr Val Leu Ser Ser Ser  
 50 55 60

Gly Thr Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro Arg Phe Glu  
 65 70 75 80

Asp Gly Gly Tyr Val Val Cys Thr Ala Gly Arg Thr Glu Ala Gly Gly  
 85 90 95

Pro

&lt;210&gt; 1438

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1438

Leu Ala Pro Leu Arg Cys Gln Pro Gly Thr Arg Thr Gln Pro Arg Ser  
 1 5 10 15

His Pro Ala Ala Asn Asp Pro Ser Ala Ala Met Ser Ala Ala Gly Ala  
 20 25 30

Arg Gly Leu Arg Ala Thr Tyr His Arg Leu Leu Asp Lys Val Glu Leu  
 35 40 45

Met Leu Pro Glu Lys Leu Arg Pro Leu Tyr Asn His Pro Ala Gly Pro  
 50 55 60

Arg Thr Val Phe Phe Trp Ala Pro Ile Met Lys Trp Gly Leu Val Cys  
 65 70 75 80

Ala Gly Leu Ala Asp Met Ala Arg Pro Ala Glu Lys Leu Ser Thr Ala  
 85 90 95

Gln Ser Ala Val Leu Met Ala Thr Gly Phe Ile Trp Ser Arg Tyr Ser

1515

100	105	110
Leu Val Ile Ile Pro Lys Asn Trp Ser Leu Phe Ala Val Asn Phe Phe		
115	120	125
Val Gly Ala Ala Gly Ala Ser Gln Leu Phe Arg Ile Trp Arg Tyr Asn		
130	135	140
Gln Glu Leu Lys Ala Lys Ala His Lys		
145	150	

&lt;210&gt; 1439

&lt;211&gt; 343

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (244)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (305)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (325)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (328)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (340)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1439

Trp Ile Gln Arg Ile Arg Ala Arg Gly Lys Thr Asn Leu Arg Arg Thr
1 5 10 15

Thr Tyr Leu Val Leu Asp Glu Ala Asp Arg Met Leu Asp Met Gly Phe
20 25 30

Glu Pro Gln Ile Arg Lys Ile Val Asp Gln Ile Arg Pro Asp Arg Gln

1516

35	40	45
Thr Leu Met Trp Ser Ala Thr Trp Pro Lys Glu Val Arg Gln Leu Ala		
50	55	60
Glu Asp Phe Leu Lys Asp Tyr Ile His Ile Asn Ile Gly Ala Leu Glu		
65	70	75 80
Leu Ser Ala Asn His Asn Ile Leu Gln Ile Val Asp Val Cys His Asp		
	85	90 95
Val Glu Lys Asp Glu Lys Leu Ile Arg Leu Met Glu Glu Ile Met Ser		
	100	105 110
Glu Lys Glu Asn Lys Thr Ile Val Phe Val Glu Thr Lys Arg Arg Cys		
	115	120 125
Asp Glu Leu Thr Arg Lys Met Arg Arg Asp Gly Trp Pro Ala Met Gly		
	130	135 140
Ile His Gly Asp Lys Ser Gln Gln Glu Arg Asp Trp Val Leu Asn Glu		
	145	150 155 160
Phe Lys His Gly Lys Ala Pro Ile Leu Ile Ala Thr Asp Val Ala Ser		
	165	170 175
Arg Gly Leu Asp Val Glu Asp Val Lys Phe Val Ile Asn Tyr Asp Tyr		
	180	185 190
Pro Asn Ser Ser Glu Asp Tyr Ile His Arg Ile Gly Arg Thr Ala Arg		
	195	200 205
Ser Thr Lys Thr Gly Thr Ala Tyr Thr Phe Phe Thr Pro Asn Asn Ile		
	210	215 220
Lys Gln Val Ser Asp Leu Ile Ser Val Leu Arg Glu Ala Asn Gln Ala		
	225	230 235 240
Ile Asn Pro Xaa Leu Leu Gln Leu Val Glu Asp Arg Gly Ser Gly Arg		
	245	250 255
Ser Arg Gly Arg Gly Gly Met Lys Asp Asp Arg Arg Asp Arg Tyr Ser		
	260	265 270
Ala Gly Lys Arg Gly Gly Phe Asn Thr Phe Arg Asp Arg Glu Asn Tyr		
	275	280 285
Asp Arg Gly Tyr Ser Ser Leu Leu Lys Arg Asp Phe Gly Ala Lys Thr		
	290	295 300
Xaa Asn Gly Gly Tyr Ser Ala Cys Lys Phe Thr Asn Gly Ser Phe Gly		

1517

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305              310              315              320
Ser Asn Phe Gly Xaa Cys Trp Xaa Ser Gly Pro Val Leu Gly Leu Gly
              325              330              335

Ile Pro Thr Xaa Ala Leu Pro
              340

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<210> 1440

**<211> 122**

<212> PRT

<213> Homo sapiens

**<400> 1440**

Ile Cys Val Ser Ala Arg Arg Ala Leu Ser Gly Leu Glu His Gly Leu  
1 5 10 15

Gly Trp Glu Arg Val Trp Glu Lys Met Gly Asn Lys Glu Pro Gly Ser  
20 25 30

His Gly His Arg Ser Asp Ala Asp Pro Ser Arg Phe Ser Pro Val Leu  
35 40 45

Pro Pro Ala Val Gln Leu Gly Val Trp Arg Glu Glu Gly Arg Gly Gly  
50 55 60

Ser	Cys	Pro	Phe	Ser	Trp	Gly	Arg	Gly	Pro	Val	Ser	Ser	Thr	Trp	Leu
65					70					75					80

Phe Pro Lys Gly Ser Lys Arg Glu Gly Leu Gly Glu Lys Thr Met Glu  
85 90 95

Arg Gly Pro Ala Lys Glu Asn Arg Glu Glu Val Ser Gly Leu Ile Ser  
100 105 110

Leu Leu Ser Arg Cys Ser Gly Ser Leu Ile  
115 120

<210> 1441

<211> 74

<212> PRT

.<213> Homo sapiens

**<400> 1441**

Gly His Arg His Thr Pro Pro His Leu Ala Asn Phe Tyr Tyr Phe Phe  
1 5 10 15

1518

Cys Arg Asp Glu Val Ser Leu Cys Pro Gly Trp Ser Gln Thr Pro Val  
                   20                  25                  30

Leu Lys Gln Ser Ser His Leu Gly Ser Leu Ser Ala Gly Ile Ile Gly  
                   35                  40                  45

Met Ser His Arg Ala Arg Pro His Val Cys Met Leu Lys Val Leu Arg  
                   50                  55                  60

Ile Pro Met Glu Asn Lys Phe Asp Phe Ala  
                   65                  70

&lt;210&gt; 1442

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1442

Ala Xaa Xaa His Gln Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro  
                   1                  5                  10                  15

Pro Arg Cys Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu  
                   20                  25                  30

Phe Gly Thr Arg Glu Ala Glu Ala Gly Val Gln Trp Cys Asp Leu Gly  
                   35                  40                  45

Ser Leu Gln Pro Leu Pro Pro Arg Phe Gln Gln Phe Ser Cys Leu Ser  
                   50                  55                  60

Leu Pro Ser Gly Trp Asp Asp Arg Arg Leu Pro Ser Cys Leu Thr Ser  
                   65                  70                  75                  80

Phe Cys Ile Phe Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp  
                   85                  90                  95

Ser Gln Thr Pro Asp Leu Arg  
                   100

1519

<210> 1443  
<211> 106  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (48)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (53)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (57)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (58)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (63)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (66)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (70)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (72)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (83)  
<223> Xaa equals any of the naturally occurring L-amino acids

1520

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (100)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1443

Leu	His	Ala	Ala	Ala	Cys	Ala	Ala	Ala	Met	Ser	Leu	Val	Ile	Pro	Glu
1			5					10					15		

Lys	Phe	Gln	His	Ile	Leu	Arg	Val	Leu	Asn	Thr	Asn	Ile	Asp	Gly	Arg
		20					25					30			

Arg	Lys	Ile	Ala	Phe	Ala	Ile	Thr	Ala	Ile	Lys	Gly	Val	Gly	Arg	Xaa
	35					40					45				

Tyr	Ala	His	Val	Xaa	Leu	Arg	Lys	Xaa	Xaa	Ile	Asp	Leu	Thr	Xaa	Arg
	50					55				60					

Ala	Xaa	Glu	Leu	Thr	Xaa	Asp	Xaa	Val	Glu	Arg	Val	Ile	Thr	Ile	Met
65				70					75					80	

Gln	Asn	Xaa	Arg	Gln	Tyr	Lys	Ile	Pro	Asp	Trp	Phe	Leu	Asn	Arg	Gln
		85						90					95		

Asn	Asp	Xaa	Xaa	Asp	Xaa	Ser	Thr	Ser	Ser
		100					105		

&lt;210&gt; 1444

&lt;211&gt; 14

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1444

Pro	Val	Trp	Pro	Lys	Trp	Ser	Gly	Trp	Pro	Leu	Ala	Leu	Pro
1				5					10				



1521

<210> 1445  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (104)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (119)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (123)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (124)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1445  
 Phe Leu Arg Leu Val Leu Gly Leu Leu Ile Gly Arg Cys Leu Gln Glu  
   1                  5                  10                  15  
 Met Leu Lys Leu Gly Thr Leu Pro Pro Thr Ser Lys Pro Gln Leu Leu  
                   20                  25                  30  
 Cys Gln Met Val Ser Leu Lys Ile Ser Ala Cys Leu Thr Thr Lys Gly  
                   35                  40                  45  
 Lys Tyr Val Val Phe Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys  
                   50                  55                  60  
 Pro Thr Glu Ile Ile Ala Phe Ser Asp Arg Ala Glu Glu Phe Lys Lys  
   65                  70                  75                  80  
 Leu Asn Cys Gln Val Ile Gly Ala Ser Val Asp Ser His Phe Cys His  
                   85                  90                  95  
 Leu Ala Trp Val Asn Thr Pro Xaa Lys Gln Gly Gly Leu Gly Pro Met  
                   100                  105                  110  
 Asn Ile Pro Leu Val Ser Xaa Pro Thr His Xaa Xaa Ser Gly  
                   115                  120                  125

1522

<210> 1446  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (92)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1446  
 Cys Asp Lys Glu Lys Asn Leu Leu His Val Thr Asp Thr Gly Val Gly  
           1                  5                  10                  15  
 Met Thr Arg Glu Glu Leu Val Lys Asn Leu Gly Thr Ile Ala Lys Ser  
                   20                  25                  30  
 Gly Thr Ser Glu Phe Leu Asn Lys Met Thr Glu Ala Gln Glu Asp Gly  
           35                  40                  45  
 Gln Ser Thr Ser Asp Leu Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser  
           50                  55                  60  
 Ala Phe Leu Val Ala Asp Lys Val Ile Val Thr Ser Lys His Asn Asn  
           65                  70                  75                  80  
 Asp Thr Gln His Ile Trp Glu Ser Asp Ser Asn Xaa Phe Ser Val Asn  
                   85                  90                  95  
 Cys

<210> 1447  
 <211> 47  
 <212> PRT  
 <213> Homo sapiens

<400> 1447  
 His Ser Arg His Arg Gly Val Phe Leu Thr Pro Leu Leu Ala Met Ser  
           1                  5                  10                  15  
 Ser His Lys Thr Phe Arg Ile Lys Arg Phe Leu Ala Lys Lys Gln Lys  
           20                  25                  30  
 Gln Asn Arg Pro Ile Pro Gln Trp Ile Arg Met Lys Thr Gly Lys  
           35                  40                  45

1523

<210> 1448  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (85)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (104)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1448  
 Val Phe Arg Val Glu Ala Trp Arg Thr Ser Gly Glu Thr Pro Ala Ile  
           1                  5                  10                  15  
 Ser Pro Ser Lys Arg Ala Arg Pro Ala Glu Val Gly Gly Met Gln Leu  
                   20                  25                  30  
 Arg Phe Ala Arg Leu Ser Glu His Ala Thr Ala Pro Thr Arg Gly Ser  
           35                  40                  45  
 Ala Arg Ala Ala Gly Tyr Asp Leu Tyr Ser Ala Tyr Asp Tyr Thr Ile  
           50                  55                  60  
 Pro Pro Met Glu Lys Ala Val Val Lys Thr Asp Ile Gln Ile Ala Leu  
           65                  70                  75                  80  
 Pro Ser Gly Cys Xaa Gly Arg Val Ala Pro Arg Ser Gly Leu Ala Ala  
                   85                  90                  95  
 Lys His Phe Ile Asp Val Gly Xaa Val Ser  
           100                  105

<210> 1449  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (41)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>

1524

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1449

Thr Met Ala Val Gly Lys Asn Lys Arg Leu Thr Lys Gly Gly Lys Lys  
 1 5 10 15

Gly Ala Lys Lys Lys Val Val Asp Pro Phe Phe Lys Lys Asp Trp Tyr  
 20 25 30

Asp Val Lys Ala Pro Ala Met Phe Xaa Ile Arg Xaa Ile Gly Lys Thr  
 35 40 45

Leu Val Thr Arg Thr Gln Gly Thr Lys Ile Ala Ser  
 50 55 60

&lt;210&gt; 1450

&lt;211&gt; 45

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1450

Asn Phe Gly Ser Leu Leu Gly Ala Cys Leu Ile Leu Gln Ile Thr Thr  
 1 5 10 15

Gly Leu Phe Leu Ala Met His Tyr Ser Pro Asp Ala Ser Thr Ala Phe  
 20 25 30

Ser Ser Ile Ala His Ile Thr Arg Asp Val Asn Tyr Gly  
 35 40 45

&lt;210&gt; 1451

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1451

Lys Leu Leu Asp Asp Asn Gly Asn Ile Ala Glu Glu Leu Ser Ile Leu  
 1 5 10 15

Lys Trp Asn Thr Asp Ser Val Glu Glu Phe Leu Ser Glu Lys Leu Glu  
 20 25 30

Arg Ile

1525

&lt;210&gt; 1452

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1452

Pro Arg Val Arg Leu Xaa Asp Glu Thr Asn Ile Cys Asn Gly Lys Pro  
1 5 10 15

Val Asp Gly Leu Thr Thr Leu Arg Asn Gly Thr Leu Val Ala Phe Arg  
20 25 30

Gly His Tyr Phe Trp Met Leu Ser Pro Phe Ser Pro Pro Ser Pro Ala  
35 40 45

Arg Arg Ile Thr Glu Val Leu Gly Asn Pro Phe Pro His  
50 55 60

&lt;210&gt; 1453

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1453

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Ala Ala Ala Leu Glu Leu  
1 5 10 15

Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Gly Cys Ser Glu Pro  
20 25 30

Arg Ser His His Cys Thr Pro Val Trp Ala Thr Glu  
35 40

&lt;210&gt; 1454

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1526

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (84)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (98)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (106)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (111)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1454

Thr	Arg	Val	Ala	Pro	Ser	Val	Leu	Arg	Leu	Ala	Met	Thr	Ser	Tyr	Ser
1				5					10					15	

Tyr	Arg	Gln	Ser	Ser	Ala	Thr	Ser	Ser	Phe	Gly	Gly	Leu	Gly	Gly	Gly
		20						25					30		

Ser	Val	Arg	Ile	Gly	Pro	Gly	Val	Ala	Phe	Arg	Ala	Pro	Ser	Ile	His
		35					40					45			

Gly	Gly	Ser	Gly	Gly	Arg	Gly	Val	Ser	Val	Ser	Ser	Ala	Arg	Phe	Val
	50					55						60			

Ser	Ser	Ser	Ser	Ser	Gly	Gly	Tyr	Gly	Gly	Gly	Xaa	Gly	Gly	Val	Leu
65					70				75					80	

Thr	Ala	Ser	Xaa	Gly	Leu	Leu	Ala	Gly	Asn	Glu	Lys	Leu	Thr	Met	Gln
				85					90					95	

Asn	Xaa	Xaa	Thr	Ala	Trp	Leu	Leu	Leu	Xaa	Lys	Phe	Ala	Pro	Xaa	Gly
			100				105						110		

Ala Lys Gly Thr Lys Ser

1527

115

&lt;210&gt; 1455

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1455

Ala	Xaa	Glu	Asn	Ser	Arg	Ile	Val	Leu	Gln	Ile	Asp	Asn	Ala	Arg	Leu
1				5					10					15	

Ala	Ala	Asp	Asp	Phe	Arg	Thr	Lys	Phe	Glu	Thr	Glu	Gln	Ala	Leu	Arg
		20						25					30		

Met	Xaa	Val	Glu	Ala	Asp	Ile	Asn	Gly	Leu	Xaa	Arg	Cys	Trp	Met	Ser
		35						40				45			

&lt;210&gt; 1456

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (131)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1528

&lt;222&gt; (137)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1456

Gly	Asp	Tyr	Ser	His	Tyr	Tyr	Thr	Thr	Ile	Gln	Asp	Leu	Arg	Asp	Lys
1				5					10					15	

Ile	Leu	Gly	Ala	Thr	Ile	Glu	Asn	Ser	Arg	Ile	Val	Leu	Gln	Ile	Asp
			20					25					30		

Asn	Ala	Arg	Leu	Ala	Ala	Asp	Asp	Phe	Arg	Thr	Lys	Phe	Glu	Thr	Glu
		35						40					45		

Gln	Ala	Leu	Arg	Met	Ser	Val	Glu	Ala	Asp	Ile	Asn	Gly	Leu	Arg	Arg
	50					55						60			

Val	Leu	Asp	Glu	Leu	Thr	Leu	Ala	Arg	Thr	Asp	Leu	Glu	Met	Gln	Ile
65					70					75				80	

Glu	Gly	Leu	Lys	Glu	Glu	Leu	Ala	Tyr	Leu	Lys	Lys	Asn	His	Glu	Glu
			85						90					95	

Glu	Ile	Ser	Thr	Leu	Arg	Gly	Gln	Val	Gly	Gly	Gln	Val	Ser	Val	Glu
			100					105					110		

Val	Asp	Ser	Ala	Pro	Gly	Thr	Asp	Leu	Ala	Lys	Ile	Leu	Ser	Asp	Met
	115						120						125		

Arg	Ser	Xaa	Tyr	Glu	Val	Met	Ala	Xaa	Gln	Asn	Arg	Lys	Asp	Ala	
	130					135						140			

&lt;210&gt; 1457

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1457

Gly	Cys	Val	Gly	Val	Arg	Pro	Ser	Leu	His	Pro	Ala	Thr	Ser	Thr	Ala
1				5					10					15	

Ser	Gly	Ser	Ala	Xaa	Pro	Thr	Leu	Ala	Arg	Ala	Met	Ala	Ser	Val	Ser
			20					25					30		

Glu	Leu	Ala	Cys	Ile	Tyr	Ser	Ala	Leu	Ile	Leu	His	Asp	Asp	Glu	Val
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



1529

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          35          40          45
Thr Val Thr Glu Asp Lys Ile Asn Ala Leu Ile Lys Ala Ala Gly Val
   50          55          60
Asn Val Glu Pro Phe Trp Pro Gly Leu Phe Ala Lys Ala Leu Ala Asn
   65          70          75          80
Val Asn Ile Gly Ser Leu Ile Cys Asn Val Gly Ala Gly Gly Pro Ala
          85          90          95
Pro Ala Ala Gly Ala Ala Thr Ser Arg Arg Ser Cys Pro Leu His Cys
          100          105          110
Cys Cys Ser Ser
          115

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&lt;210&gt; 1458

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1458

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Leu Val Pro Asn Ser Ala Arg Ala Ala Ala Ser Ala Ala Asp Ala Ala
   1          5          10          15
Ala Met Arg Tyr Val Ala Ser Tyr Leu Leu Ala Ala Leu Gly Gly Asn
          20          25          30
Ser Ser Pro Ser Ala Lys Gly Ile Lys Lys Ile Leu Asp Asn Xaa Gly
          35          40          45
Ile Glu Ala Asp Asp Asp Arg Leu Asn Lys Val Ile Ser Glu Leu Asn
          50          55          60
Gly Lys Asn Ile Glu Asp Val Ile Ala Gln Gly Ile Gly Lys Leu Ala
          65          70          75          80
Ser Val Pro Ala Gly Gly Ala Val Ala Val Ser Ala Ala Pro Gly Ser
          85          90          95
Ala Ala Pro Ala Ala Gly Ser Ala Pro Ala Ala Ala Glu Glu Lys Lys
          100          105          110

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1530

Asp Glu Lys  
115

&lt;210&gt; 1459

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (115)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (126)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (129)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1459

Ala Ser Asp Ala Leu His Ser Leu Ser Ala Pro Val Leu Arg Leu Ser  
1 5 10 15

Ser Arg Ser Ala Ala Arg Pro Ala Thr Met Thr Glu Gln Ala Ile Ser  
20 25 30

Phe Ala Lys Asp Phe Leu Ala Gly Gly Ile Ala Ala Ala Ile Ser Lys  
35 40 45

Thr Ala Val Ala Pro Ile Glu Arg Val Lys Leu Leu Leu Gln Val Gln  
50 55 60

His Ala Ser Lys Gln Ile Ala Ala Asp Lys Gln Tyr Lys Gly Ile Val  
65 70 75 80

Asp Cys Ile Val Arg Ile Pro Lys Glu Gln Gly Val Leu Ser Phe Trp  
85 90 95

Arg Gly Asn Leu Ala Asn Val Ile Arg Tyr Phe Pro Thr Gln Ala Leu  
100 105 110

1531

Asn Phe Xaa Phe Lys Asp Lys Tyr Lys Gln Xaa Phe Leu Xaa Gly Val  
115 120 125

Xaa Lys His Thr  
130

<210> 1460

<211> 124

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1532

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (119)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (120)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (121)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1460

Xaa	Ser	Xaa	Lys	Thr	Gly	Phe	Xaa	Asp	Trp	Ile	Ser	Val	Ala	Tyr	Tyr
1				5					10					15	

Gly	Cys	Phe	Arg	Glu	Gly	Ala	Thr	Ile	Ile	Gln	Val	Gly	Lys	Leu	Ile
			20					25					30		

Lys	Glu	Ala	Ala	Gly	Lys	Ser	Asn	Leu	Lys	Arg	Val	Thr	Leu	Glu	Leu
		35					40						45		

Gly	Gly	Lys	Ser	Pro	Cys	Ile	Val	Leu	Ala	Asp	Ala	Asp	Leu	Asp	Asn
	50					55					60				

Ala	Val	Glu	Phe	Ala	His	His	Gly	Val	Phe	Tyr	His	Gln	Gly	Gln	Xaa
65					70					75					80

Cys	Ile	Ala	Ala	Xaa	Arg	Ile	Phe	Val	Glu	Glu	Ser	Ile	Tyr	Asp	Glu
				85					90					95	

Phe	Val	Arg	Arg	Ser	Val	Glu	Arg	Val	Lys	Xaa	Ile	Ser	Leu	Gly	Xaa
			100					105						110	

Pro	Leu	Thr	Pro	Xaa	Val	Xaa	Xaa	Xaa	Pro	Ser	Asp
		115						120			

&lt;210&gt; 1461

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1533

<221> SITE  
<222> (102)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (125)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (142)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (145)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (157)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (163)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (173)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (174)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (176)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1461  
Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Val Val Pro Leu Ala  
1 5 10 15  
Gly Thr Asn Gly Glu Thr Thr Thr Gln Gly Leu Asp Gly Leu Ser Glu  
20 25 30

Arg	Cys	Ala	Gln	Tyr	Lys	Lys	Asp	Gly	Ala	Asp	Phe	Ala	Lys	Trp	Arg	
35						40						45				
Cys	Val	Leu	Lys	Ile	Gly	Glu	His	Thr	Pro	Ser	Ala	Leu	Ala	Ile	Met	
50						55						60				
Glu	Asn	Ala	Asn	Val	Leu	Ala	Arg	Tyr	Ala	Ser	Ile	Cys	Gln	Gln	Asn	
65						70						75			80	
Gly	Ile	Val	Pro	Ile	Val	Glu	Pro	Glu	Ile	Leu	Pro	Asp	Gly	Asp	His	
			85						90						95	
Asp	Leu	Lys	Arg	Leu	Xaa	Val	Cys	Asp	Arg	Lys	Gly	Ala	Trp	Leu	Ala	
			100						105						110	
Ala	Thr	Arg	Leu	Leu	Ser	Asp	His	His	Ile	Tyr	Leu	Xaa	Gly	Thr	Leu	
115						120						125				
Leu	Lys	Pro	Asn	Met	Val	Pro	Gln	Ala	Met	Leu	Ala	Leu	Xaa	Ser	Phe	
130						135						140				
Xaa	Met	Lys	Glu	Ile	Ala	His	Gly	Glu	Pro	Val	Ser	Xaa	Ala	Val	Pro	
145						150						155			160	
Ala	Gln	Xaa	Pro	Pro	Arg	Leu	Ser	Leu	Gly	Ile	Asn	Xaa	Xaa	Cys	Xaa	
			165						170						175	
Gly	Arg	Pro														

Gly Ala Ala Ala Ser Glu Ser Leu Phe Val Ser Asn His Ala Tyr  
20 25 30

1535

&lt;210&gt; 1463

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (69)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1463

Asp	Asp	Cys	Glu	Phe	Lys	Ala	Glu	Gly	Asn	Ser	Lys	Phe	Thr	Tyr	Thr
1				5				10						15	

Val	Leu	Glu	Asp	Gly	Cys	Thr	Lys	His	Thr	Gly	Glu	Trp	Ser	Lys	Thr
		20					25						30		

Val	Phe	Glu	Tyr	Arg	Thr	Arg	Lys	Ala	Val	Arg	Leu	Pro	Ile	Val	Asp
		35					40					45			

Ile	Ala	Pro	Tyr	Asp	Ile	Gly	Gly	Pro	Asp	Gln	Glu	Phe	Gly	Val	Asp
	50					55					60				

Xaa	Gly	Pro	Val	Xaa	Phe	Leu
65					70	

&lt;210&gt; 1464

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

1536

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1464

Xaa Gly Thr Arg His Xaa Leu Arg Thr Xaa Asn Gln Ser Ser Asp Glu  
1 5 10 15

Leu Gln Leu Ser Met Gly Asn Ala Met Phe Val Lys Glu Gln Leu Ser  
20 25 30

Leu Leu Asp Arg Phe Thr Glu Asp Ala Lys Arg Leu Tyr Gly Ser Glu  
35 40 45

Ala Phe Ala Thr Asp Phe Gln Asp Ser Ala Ala Ala Lys Lys Leu Ile  
50 55 60

Asn Asp Tyr Val Lys Asn Gly Thr Arg Gly Thr Ile Thr  
65 70 75

<210> 1465

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1465

Leu Lys Gly Arg Pro Gly Phe Pro Gly Ser Lys Gly Glu Ala Gly Phe  
1 5 10 15

Phe Gly Ile Pro Gly Leu Lys Gly Leu Ala Gly Glu Pro Gly Phe Lys  
20 25 30



1537

Gly Ser Arg Gly Asp Pro Gly Pro Pro Gly Pro Pro Pro Val Ile Leu  
           35                          40                          45  
 Pro Gly Met Lys Asp Ile Lys Gly Glu Lys Gly Asp Glu Gly Pro Met  
           50                          55                          60  
 Gly Leu Lys Gly Tyr Leu Gly Ala Lys Gly Ile Gln Gly Met Pro Gly  
           65                          70                          75                          80  
 Ile Pro Xaa Leu Ser Gly Ile Pro Gly Leu Pro Gly Arg Pro Gly His  
                           85                          90                          95  
 Ile Xaa Gly Ile Lys Gly Xaa Xaa Gly  
                           100                          105

&lt;210&gt; 1466

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1466

Arg Pro Gly Leu Cys Ala Lys Thr Val Phe Lys Ala Leu Gln Ala Pro  
       1                          5                          10                          15

Ala Leu Xaa Glu Glu His Gly Glu Gly Trp Arg Leu His Pro Trp Gly  
                           20                          25                          30

Val Trp Glu Thr  
                           35

&lt;210&gt; 1467

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1538

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1467

Arg	Val	Pro	Ala	Met	Ala	Ala	Lys	Gly	Gly	Thr	Val	Lys	Ala	Ala	Ser
1				5				10					15		

Ala	Phe	Asn	Ala	Thr	Glu	Asp	Ala	Gln	Thr	Leu	Arg	Lys	Ala	Met	Lys
		20					25					30			

Gly	Leu	Gly	Thr	Asp	Glu	Asp	Ala	Ile	Ile	Ser	Val	Leu	Ala	Tyr	Arg
	35						40					45			

Asn	Thr	Ala	Gln	Arg	Gln	Glu	Ile	Arg	Thr	Ala	Leu	Gln	Glu	His	His
	50					55					60				

Ser	Ala	Gly	Asp	Leu	Val	Leu	Arg	Asn	Gly	Pro	Xaa	Phe	Val	Xaa	Xaa
65					70				75					80	

Trp Xaa

&lt;210&gt; 1468

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1539

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (66)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (83)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1468

Gly	Trp	His	Leu	Gly	Pro	Pro	Gly	Ser	Trp	Cys	Trp	Trp	Ser	Xaa	Cys
1				5				10						15	

Ile	Thr	Gly	Pro	Asn	Thr	Ser	Xaa	Cys	Cys	Trp	Thr	His	Phe	Glu	Lys
			20					25					30		

Pro	Arg	Xaa	Ile	Asp	Asn	Val	Leu	Val	Ile	Phe	Ser	His	Asp	Phe	Trp
		35					40					45			

Ser	Thr	Glu	Ile	Asn	Gln	Leu	Ile	Ala	Gly	Val	Asn	Xaa	Cys	Pro	Val
	50					55					60				

Leu	Xaa	Val	Phe	Phe	Pro	Phe	Ser	Ile	Gln	Leu	Phe	Pro	Asn	Xaa	Phe
65						70				75					80

Pro Xaa Xaa

&lt;210&gt; 1469

1540

<211> 26  
<212> PRT  
<213> Homo sapiens

<400> 1469  
Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln  
1 5 10 15  
Pro Lys Ile Val Lys Trp Asp Arg Asp Met  
20 25

<210> 1470  
<211> 168  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (17)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (136)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (139)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (141)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (143)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (146)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (148)

1541

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

**<222> (152)**

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

**<222> (153)**

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

**<222> (158)**

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1470

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Gly Gly Arg Ser  
1 5 10 15

Xaa Gly Ser Lys Leu Thr Tyr Ala Cys Met Arg Arg His Ser Ser Ser  
20 25 30

Ile Val Ser Pro Lys Phe Asn Ser Leu Ala Val Val Leu Gln Arg Arg  
35 40 45

Asp Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His  
50 55 60

Pro	Pro	Phe	Ala	Ser	Trp	Arg	Asn	Ser	Glu	Glu	Ala	Arg	Thr	Asp	Arg
65					70					75					80

Pro Ser Gln Gln Leu Arg Ser Leu Asn Gly Lys Trp Asp Ala Pro Cys  
85 90 95

Ser Gly Ala Leu Ser Ala Ala Gly Val Val Val Thr Arg Ser Val Thr  
100 105 110

Ala Thr Leu Ala Ser Ala Leu Arg Pro Val Leu Ser Phe Leu Pro Phe  
115 120 125

Leu Ser Arg His Val Arg Arg Xaa Ser Pro Xaa Ser Xaa Lys Xaa Gly  
130 135 140

Ala Xaa Phe Xaa Val Pro Ile Xaa Xaa Leu Arg Asp Leu Xaa Pro Lys  
145 150 155 160

Asn Leu Ile Arg Val Met Val Thr  
165

1542

<210> 1471  
 <211> 131  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (22)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (88)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (111)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (116)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (119)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1471  
 Cys His Leu Asn Ser Ile His Trp Pro Ser Phe Tyr Asn Val Val Thr  
   1                  5                  10                  15  
 Gly Lys Thr Leu Ala Xaa Pro Asn Leu Ile Ala Leu Gln His Ile Pro  
                   20                  25                  30  
 Leu Ser Pro Ala Gly Ser Asn Ser Glu Glu Ala Arg Thr Asp Arg Pro  
           35                  40                  45  
 Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Asp Ala Pro Cys Ser  
   50                  55                  60  
 Gly Ala Leu Ser Ala Ala Gly Val Val Val Thr Arg Ser Val Thr Ala  
   65                  70                  75                  80  
 Thr Leu Ala Ser Ala Leu Ala Xaa Ala Pro Phe Ala Phe Phe Pro Ser  
           85                  90                  95

1543

Phe Leu Ala Thr Phe Ala Gly Phe Pro Arg Gln Ala Leu Asn Xaa Gly  
100 105 110  
Leu Pro Leu Xaa Phe Arg Xaa Ser Ala Val Arg His Leu Asp Pro Lys  
115 120 125  
Lys Leu Asp  
130

&lt;210&gt; 1472

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1544

<220>  
<221> SITE  
<222> (74)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (82)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (102)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (105)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (109)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (110)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (114)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (117)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (118)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (119)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>



1545

&lt;221&gt; SITE

&lt;222&gt; (125)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (139)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (150)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (161)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (167)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (179)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1472

Lys	Lys	Lys	Lys	Xaa	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
1				5					10					15		

Lys	Lys	Lys	Lys	Gly	Gly	Arg	Xaa	Xaa	Gly	Ser	Lys	Leu	Thr	Tyr	Ala
			20					25					30		

Cys	Met	Xaa	Arg	His	Ser	Ser	Xaa	Ile	Gly	Ser	Pro	Lys	Phe	Asn	Ser
		35					40					45			

Leu	Ala	Xaa	Val	Leu	Gln	Arg	Arg	Asp	Trp	Glu	Asn	Pro	Gly	Val	Thr
	50					55					60				

Gln	Leu	Asn	Arg	Leu	Ala	Xaa	His	Pro	Xaa	Phe	Ala	Ser	Trp	Arg	Asn
65					70					75					80

Ser	Xaa	Lys	Ala	Arg	Thr	Asp	Arg	Pro	Ser	Gln	Gln	Leu	Arg	Ser	Leu
				85					90					95	

Asn	Gly	Lys	Trp	Asp	Xaa	Pro	Cys	Xaa	Gly	Ala	Leu	Xaa	Xaa	Ala	Gly
			100					105						110	

1546

Val Xaa Val Thr Xaa Xaa Xaa Thr Ala Thr Leu Ala Xaa Ala Leu Ala  
 115 120 125  
 Pro Ala Pro Phe Ala Phe Phe Pro Ser Phe Xaa Ala Thr Phe Ala Gly  
 130 135 140  
 Phe Pro Arg Gln Ala Xaa Asn Arg Gly Leu Pro Leu Gly Phe Arg Leu  
 145 150 155 160  
 Xaa Ala Leu Arg Asp Leu Xaa Pro Gln Lys Asn Leu Ile Arg Gly Asp  
 165 170 175  
 Gly Ser Xaa

<210> 1473  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 1473  
 Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met  
 1 5 10 15  
 Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala  
 20 25 30  
 Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu  
 35 40 45  
 Asn Arg Leu Ala Ala His Pro Pro Phe Ala  
 50 55

<210> 1474  
 <211> 70  
 <212> PRT  
 <213> Homo sapiens

<400> 1474  
 Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met  
 1 5 10 15  
 Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala  
 20 25 30  
 Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu  
 35 40 45

1547

Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu  
50 55 60

Glu Ala Arg Thr Asp Arg  
65 70

&lt;210&gt; 1475

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1475

Leu Pro Xaa Ala Xaa Tyr Thr Xaa Xaa Gly Thr Thr Pro His Tyr Arg

1548

1                    5                    10                    15  
Glu Ser Trp Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Pro Gly Ser Thr  
                  20                    25                    30  
His Ala Ser Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Arg Xaa  
                  35                    40                    45  
Asp Asp Leu Glu Asp Pro Lys Leu Thr Tyr Xaa Xaa Met Gln  
                  50                    55                    60

&lt;210&gt; 1476

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

1549

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1476

Ile Arg Xaa Xaa Xaa Leu Arg Xaa Asp Thr Thr His Tyr Arg Glu Ser  
1 5 10 15

Trp Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Pro Gly Xaa Thr His Ala  
20 25 30

Ser Val Glu Ile Cys Pro Pro Xaa Ser Arg Pro Xaa Ser Ser Gln Ser  
35 40 45

Asn Gly Glu Gly Tyr Ser Xaa Cys Arg Arg Pro Gln Ala Leu Glu Ala  
50 55 60

Ala Thr Tyr Leu Asn Pro Val Pro Xaa Arg Ile Leu Leu Lys Pro Phe  
65 70 75 80

<210> 1477

<211> 52

<212> PRT

<213> Homo sapiens

<400> 1477

Arg Gln Val Pro His Glu Arg Ala Val Arg Asp Gly Arg Gly Gly Gly  
1 5 10 15

Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met Arg Arg His Ser  
20 25 30

Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala Val Val Leu Gln  
35 40 45

Arg Arg Asp Trp  
50

1550

&lt;210&gt; 1478

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (140)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1478

Ile	Ala	Ser	Gly	Arg	Ser	Arg	Gly	Ser	Lys	Leu	Thr	Tyr	Ala	Cys	Met
1				5					10					15	

Arg	Arg	His	Ser	Ser	Ser	Ile	Val	Ser	Pro	Lys	Phe	Asn	Ser	Leu	Ala
			20					25					30		

Val	Val	Leu	Gln	Arg	Arg	Asp	Trp	Glu	Asn	Pro	Gly	Val	Thr	Gln	Leu
		35					40					45			

Asn	Arg	Leu	Ala	Ala	His	Pro	Pro	Phe	Ala	Ser	Trp	Arg	Asn	Ser	Glu
	50					55					60				

Glu	Ala	Arg	Thr	Asp	Arg	Pro	Ser	Gln	Gln	Leu	Arg	Ser	Leu	Asn	Gly
65					70					75				80	

Glu	Trp	Asp	Ala	Pro	Cys	Ser	Gly	Ala	Leu	Ser	Ala	Ala	Gly	Val	Val
				85					90					95	

Val	Thr	Arg	Ser	Val	Thr	Ala	Thr	Leu	Ala	Ser	Ala	Leu	Ala	Pro	Ala
			100					105					110		

Pro	Phe	Ala	Phe	Phe	Pro	Ser	Phe	Leu	Ala	Thr	Phe	Ala	Gly	Phe	Pro
		115					120					125			

Arg	Gln	Ala	Leu	Asn	Arg	Gly	Leu	Pro	Leu	Gly	Xaa	Arg	Phe	Lys	Cys
	130					135					140				

Phe	Thr	Asp	Leu	Asp	Pro	Lys	Lys	Leu	Asp
145						150			

&lt;210&gt; 1479

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1551

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1479

Ile Ala Gly Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met  
1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala  
20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu  
35 40 45

Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu  
50 55 60

Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu Asn Gly  
65 70 75 80

Glu Trp Asp Ala Pro Cys Ser Gly Ala Leu Ser Ala Ala Gly Val Val  
85 90 95

Val Thr Arg Ser Val Thr Ala Thr Leu Ala Lys Arg Pro Lys Arg Pro  
100 105 110

Phe Leu Ser Leu Ser Ser Phe Leu Phe Xaa Pro Arg Ser Ala Gly Phe  
115 120 125

Ser Pro  
130

&lt;210&gt; 1480

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (103)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (112)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1552

&lt;222&gt; (127)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (129)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1480

Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met  
1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala  
20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu  
35 40 45

Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu  
50 55 60

Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu Asn Gly  
65 70 75 80

Glu Trp Asp Ala Pro Cys Ser Gly Ala Leu Ser Ala Ala Gly Val Val  
85 90 95

Val Thr Arg Ser Val Thr Xaa Thr Leu Ala Ser Ala Leu Ala Pro Xaa  
100 105 110

Pro Phe Ala Phe Phe Leu Leu Ser Arg His Gly Arg Pro Ala Xaa Pro  
115 120 125

Xaa Lys Leu  
130

&lt;210&gt; 1481

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)



1553

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1481

Xaa Ser Ser Arg Ser Arg Ala Ala Arg Ser Arg Gly Ser Lys Leu Thr  
1 5 10 15

Tyr Ala Cys Met Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe  
20 25 30

Asn Ser Leu Ala Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly  
35 40 45

Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp  
50 55 60

His Asn Ser Glu Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg  
65 70 75 80

Ser Leu Asn Gly Glu Trp Asp Xaa Pro Cys Ser Gly Ala Leu Ser Ala  
85 90 95

Ala Gly Val Val Val Thr Arg Ser Val Thr Ala Thr Leu Ala Ala Pro  
100 105 110

<210> 1482

<211> 53

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1482

Glu Asn Val Lys Ala Lys Ile Gln Asp Lys Glu Gly Ile Pro Pro Glu

1554

1                    5                    10                    15  
 Xaa Ser Arg Glu Leu Asn Leu Cys Leu Xaa Lys Gln Leu Gly Arg Met  
                   20                    25                    30  
 Gly Arg Tyr Phe Val Leu Asn Leu Gln Tyr Phe Lys Arg Gly Ser Tyr  
                   35                    40                    45  
 Phe Xaa Ile Leu Cys  
                   50

&lt;210&gt; 1483

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1483

Ala Asn Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr  
 1                    5                    10                    15

Leu Glu Val Glu Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Lys Ile  
                   20                    25                    30

Gln Asp Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala  
                   35                    40                    45

Gly Lys Gln Leu Glu Gly Trp Xaa Gln Leu Xaa Gln Thr  
                   50                    55                    60

&lt;210&gt; 1484

&lt;211&gt; 27

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

1555

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1484

Gly Glu Gly Pro Thr Xaa Pro Leu Pro Ser Glu Thr Xaa Gly Asp Val

1

5

10

15

Ala Pro Leu Xaa Cys Xaa Xaa Gly Leu Asn Met

20

25

<210> 1485

<211> 45

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

1556

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1485

Phe Leu Ala Ala Gly Asn Pro Leu Arg Trp Pro Xaa Ile Leu Thr Ser  
 1 5 10 15

Arg Trp Lys Ser Asp Ile Tyr Xaa Arg Lys Ser Asp Gly Xaa Tyr Ile  
 20 25 30

Ile Xaa Leu Lys Arg Thr Trp Glu Lys Leu Leu Leu Gly  
 35 40 45

&lt;210&gt; 1486

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1486

Pro Arg Val Arg Arg Ala Glu Trp Leu Cys Gly Arg Val Ser Glu Thr  
 1 5 10 15

Gly Ser Ala Cys Ser Met Ala Asp Gln Leu Thr Glu Glu Gln Ile Ala  
 20 25 30

Glu Phe Lys Glu Ala Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Thr  
 35 40 45

Ile Thr Thr Lys Glu Leu Gly Thr Val Met Arg Ser Leu Gly Gln Asn  
 50 55 60

Pro Thr Glu Ala Glu Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp  
 65 70 75 80

Gly Asn Gly Thr Ile Asp Phe Pro Glu Phe Leu Thr Met Met Ala Arg  
 85 90 95

Lys Met Lys Asp Thr Asp Ser Glu Glu Glu Ile Arg Glu Ala Phe Arg  
 100 105 110

Val Phe Asp Lys Asp Gly Asn Gly Tyr Ile Ser Ala Ala Glu Leu Arg  
 115 120 125

His Val Met Thr Asn Leu Gly Arg Glu Val Asn Arg  
 130 135 140

1557

<210> 1487  
<211> 36  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (8)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (13)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (16)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (19)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (35)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1487  
Xaa Leu Gly Arg Asn Trp Ala Xaa Phe Thr Gly Lys Xaa Val Gly Xaa  
1 5 10 15  
Ala Ser Xaa Asn Val Tyr Val His Ile Pro His Leu Arg Asn Ser His  
20 25 30  
Glu Lys Xaa Ser  
35

<210> 1488  
<211> 34  
<212> PRT

1558

&lt;213&gt; Homo sapiens

&lt;400&gt; 1488

Ser Gly Pro Leu Trp Ile Leu Gly Asp Val Phe Ile Gly Arg Tyr Tyr  
1 5 10 15

Thr Val Phe Asp Arg Asp Asn Asn Arg Val Gly Phe Ala Glu Ala Ala  
20 25 30

Arg Leu

&lt;210&gt; 1489

&lt;211&gt; 160

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (160)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1489

Pro Thr Asn Xaa Xaa Lys Ser Xaa Glu Leu His Arg Gly Gly Gly Arg  
1 5 10 15

Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Thr  
20 25 30

Gln Arg Pro Val Asp Ile Val Phe Leu Leu Asp Gly Ser Glu Arg Leu  
35 40 45

Gly Glu Gln Asn Phe His Lys Ala Arg Arg Phe Val Glu Gln Val Ala  
50 55 60

1559

Arg Arg Leu Thr Leu Ala Arg Arg Asp Asp Asp Pro Leu Asn Ala Arg  
65 70 75 80

Val Ala Leu Leu Gln Phe Gly Gly Pro Gly Glu Gln Gln Val Ala Phe  
85 90 95

Pro Leu Ser His Asn Leu Thr Ala Ile His Glu Ala Leu Glu Thr Thr  
100 105 110

Gln Tyr Leu Asn Ser Phe Ser His Val Gly Ala Gly Val Val His Ala  
115 120 125

Ile Asn Ala Ile Val Arg Ser Pro Arg Gly Gly Ala Arg Arg His Ala  
130 135 140

Glu Leu Pro Ser Trp Ser Ser Arg Thr Ala Ser Arg Ala Thr Thr Xaa  
145 150 155 160

&lt;210&gt; 1490

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1560

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (86)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1490

Ala	Gln	Met	Gly	Met	Leu	Lys	Gly	Pro	Leu	Leu	Asn	Lys	Phe	Leu	Thr
1				5					10					15	

Thr	Ala	Lys	Asp	Lys	Asn	Arg	Trp	Glu	Asp	Xaa	Gly	Lys	Gln	Leu	Tyr
	20							25						30	

Asn	Val	Glu	Ala	Thr	Ser	Tyr	Xaa	Leu	Xaa	Ala	Leu	Leu	Gln	Leu	Lys
		35						40				45			

Xaa	Phe	Asp	Phe	Val	Pro	Pro	Val	Val	Xaa	Xaa	Leu	Asn	Xaa	Gln	Arg
	50						55							60	



1561

Xaa Tyr Gly Gly Gly Tyr Gly Ser Thr Gln Ala Thr Phe Met Val Phe  
 65 70 75 80

Gln Xaa Leu Ala Gln Xaa Gln Lys Asp Gly Pro Asp His Gln Ala Leu  
 85 90 95

Asn Leu Xaa Val Xaa Leu Gln Met Leu  
 100 105

<210> 1491  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 1491  
 Arg Asn Thr Leu Ile Ile Tyr Leu Asp Lys Val Ser His Ser Glu Asp  
 1 5 10 15

Asp Cys Leu Ala Phe Lys Val His Gln Tyr Phe Asn Val Glu Leu Ile  
 20 25 30

Gln Pro Gly Ala Val Lys Val Tyr Ala Tyr Tyr Asn Leu Glu Glu Ser  
 35 40 45

Cys Thr Arg Phe Tyr His Pro Glu Lys Glu Asp Gly Lys Leu Asn Lys  
 50 55 60

Leu Cys Arg Asp Glu Leu Cys Arg Cys Ala Glu Glu Asn Cys Phe Ile  
 65 70 75 80

Gln Lys Ser Asp Asp Lys Val Thr Leu Glu Glu Arg Leu Asp Lys Ala  
 85 90 95

Cys Glu Pro Gly Val Asp Tyr Val Tyr Lys Thr Arg Leu Ala Arg Phe  
 100 105 110

Lys Leu Ser Asn Asp Phe Asp Arg Val His His Gly His  
 115 120 125

<210> 1492  
 <211> 68  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (62)

1562

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1492

Arg Pro Thr Arg Pro Ala Leu Ser Ile Ile Ala Leu Glu Ile Gln Ala  
1 5 10 15

Gln Lys Cys Val Glu Leu Thr Glu Gly Ile Glu Cys Leu Gln Thr His  
20 25 30

Ser Lys Ile Asn Gly Arg Asp Leu Thr Phe Trp Gln Glu Leu Val Ser  
35 40 45

Lys Cys Leu Thr Glu Tyr Ser Ser Lys Gln Ser Gly Ser Xaa Pro Asn  
50 55 60

Val Pro Glu Val  
65

<210> 1493

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1563

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1493

Glu	Glu	Ile	Gln	Lys	His	Asn	His	Ser	Lys	Ser	Thr	Trp	Xaa	Asp	Pro
1				5					10					15	

Xaa	Thr	Thr	Arg	Cys	Thr	Asn	Leu	Thr	Lys	Phe	Leu	Xaa	Glu	Ala	Ser
			20					25					30		

Leu	Val	Gly	Glu	Glu	Val	Leu	Arg	Gly	Thr	Ser	Leu	Glu	Val	Thr	Leu
		35					40					45			

Leu	Glu	Glu	Xaa	Leu	Arg	Xaa	Val	Arg	Gly	Thr	Phe	Thr	Xaa	Xaa	Pro
	50					55						60			

Lys	Gly	Lys	Leu	Phe	Pro	Lys	Thr	Phe	Xaa
65						70			

&lt;210&gt; 1494

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (46)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1494

Asp	Ala	Thr	Ser	Pro	Ile	Ile	Glu	Glu	Leu	Ile	Thr	Phe	His	Asp	His
1					5					10				15	

1564

Ala Leu Ile Ile Ile Phe Leu Ile Cys Phe Leu Val Leu Tyr Ala Leu  
20 25 30  
Phe Leu Thr Leu Thr Thr Lys Leu Thr Asn Thr Asn Ile Xaa Asp Ala  
35 40 45  
Xaa Glu Ile Glu Thr Val  
50

<210> 1495  
<211> 38  
<212> PRT  
<213> Homo sapiens

<400> 1495  
Phe Phe Gly His Pro Glu Val Tyr Ile Leu Ile Leu Pro Gly Phe Gly  
1 5 10 15  
Ile Ile Ser His Ile Val Thr Tyr Tyr Ser Gly Lys Lys Glu Pro Phe  
20 25 30  
Gly Tyr Ile Gly Met Val  
35

<210> 1496  
<211> 46  
<212> PRT  
<213> Homo sapiens

<400> 1496  
Ala Phe Tyr His Ser Ser Leu Ala Pro Thr Pro Gln Leu Gly Gly His  
1 5 10 15  
Trp Pro Pro Thr Gly Ile Thr Pro Leu Asn Pro Leu Glu Val Pro Leu  
20 25 30  
Leu Asn Thr Ser Val Leu Leu Ala Ser Gly Val Ser Ile Thr  
35 40 45

<210> 1497  
<211> 60  
<212> PRT  
<213> Homo sapiens

<400> 1497

1565

Ala Gln Val Gly Leu Gln Asp Ala Thr Ser Pro Ile Ile Glu Glu Leu  
 1 5 10 15  
 Ile Thr Phe His Asp His Ala Leu Ile Ile Ile Phe Leu Ile Cys Phe  
 20 25 30  
 Leu Val Leu Tyr Ala Leu Phe Leu Thr Leu Thr Thr Lys Leu Thr Asn  
 35 40 45  
 Thr Asn Ile Ser Asp Ala Gln Glu Ile Glu Thr Val  
 50 55 60

<210> 1498  
 <211> 45  
 <212> PRT  
 <213> Homo sapiens

<400> 1498  
 Thr Tyr Glu Tyr Thr Asp Tyr Gly Gly Leu Ile Phe Asn Ser Tyr Ile  
 1 5 10 15  
 Leu Pro Pro Leu Phe Leu Glu Pro Gly Asp Leu Arg Leu Leu Asp Gly  
 20 25 30  
 Asp Asn Arg Val Val Leu Pro Ile Glu Ala Pro Phe Val  
 35 40 45

<210> 1499  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (63)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1499  
 His Arg Leu Asp Phe Leu Gln Leu Met Ile Asp Ser Gln Asn Ser Lys  
 1 5 10 15  
 Glu Thr Glu Ser His Lys Ala Leu Ser Asp Leu Glu Leu Ala Ala Gln  
 20 25 30  
 Ser Ile Ile Phe Ile Phe Ala Gly Tyr Glu Thr Thr Ser Ser Val Leu  
 35 40 45

1566

Ser Phe Thr Leu Tyr Glu Leu Ala Thr His Pro Asp Val Gln Xaa Lys  
50 55 60

Leu Gln Lys Gly Asp  
65

&lt;210&gt; 1500

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1500

Arg Leu Thr Ser Thr Ala Cys Ala Glu Ser Trp Asp Glu Leu Thr Leu  
1 5 10 15

Ala Arg Xaa Asp Leu Glu Xaa Gln Ile Glu Gly Leu Asn Glu Xaa Ala  
20 25 30

Ser Leu Thr  
35

&lt;210&gt; 1501

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1567

<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (33)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (49)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (56)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (58)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (67)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (68)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (76)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (80)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (82)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

1568

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (98)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1501

Phe Xaa Ala Pro Ser Arg Ile Ser Ala Trp Xaa Gly Pro Pro Ala Ser  
 1 5 10 15

Thr Pro Ala Ser Thr Met Ser Ile Lys Val Thr Gln Lys Ser Tyr Lys  
 20 25 30

Xaa Ser Thr Ser Ser Pro Arg Ala Phe Ser Ser Arg Ser Tyr Thr Asn  
 35 40 45

Xaa Pro Gly Ser Arg Ile Asn Xaa Ser Xaa Phe Ser Arg Ile Gly Ser  
 50 55 60

Ser Asn Xaa Xaa Ser Gly Leu Gly Gly Gly Tyr Xaa Gly Ala Ser Xaa  
 65 70 75 80

Met Xaa Gly Ile Thr Ala Val Thr Val Asn Gln Ser Leu Leu Xaa Pro  
 85 90 95

Leu Xaa Leu Glu Val Asp Pro Asn Ile Gln Ala Val Arg Thr Gln Glu  
 100 105 110

Lys Glu Gln Ile Xaa Thr Leu Asn Asn Lys Phe Ala Ser Ser  
 115 120 125

&lt;210&gt; 1502

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;



<221> SITE  
<222> (10)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (14)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (15)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (18)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (27)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (30)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (44)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (48)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (63)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

1570

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1502

Gln	Arg	Asn	Ser	Xaa	Gly	Ser	Arg	Thr	Xaa	Xaa	Ser	Arg	Xaa	Xaa	Cys
1				5				10					15		

Lys	Xaa	Val	Ala	Met	Phe	Ser	Trp	Asp	Pro	Xaa	Leu	Val	Xaa	Gly	Gly
		20					25					30			

Gly	Ala	Ser	Lys	Met	Ala	Val	Ala	His	Ala	Leu	Xaa	Glu	Lys	Ser	Xaa
	35					40					45				

Ala	Met	Asp	Trp	Cys	Gly	Asn	Asn	Gly	His	Thr	Gly	Leu	Leu	Xaa	Arg
	50				55					60					

Ala	Leu	Xaa	Val	His	Ser	Ser	Xaa	Pro	Trp	Ile	Xaa	Lys	Leu	Trp	Gly
65					70				75					80	

Xaa Ser His His

&lt;210&gt; 1503

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (69)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1571

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1503

Val Gly Val Leu Gly Leu Asp Leu Trp Gln Val Lys Ser Gly Thr Ile  
1 5 10 15

Phe Asp Asn Phe Leu Ile Thr Asn Asp Glu Ala Tyr Ala Glu Glu Phe  
20 25 30

Gly Asn Glu Thr Trp Gly Val Thr Lys Ala Ala Glu Lys Gln Met Lys  
35 40 45

Asp Lys Gln Asp Glu Glu Gln Arg Leu Lys Glu Glu Glu Asp Lys  
50 55 60

Lys Arg Lys Glu Xaa Xaa  
65 70

&lt;210&gt; 1504

&lt;211&gt; 42

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1572

&lt;400&gt; 1504

Asn Thr Leu Xaa Tyr Xaa Met Lys Ala Thr Xaa Ile Leu Leu Leu Xaa  
1 5 10 15

Ala Gln Leu Ser Trp Ala Gly Pro Phe His Gln Thr Gly Leu Leu Asp  
20 25 30

Ser Met Leu Glu His Glu Ala Tyr Xaa Ile  
35 40

&lt;210&gt; 1505

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (46)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1505

Xaa His Xaa Asp Cys Ser Xaa Pro Ile Val Ala Ala Gly Val Gly Glu  
1 5 10 15

1573

Phe Glu Ala Gly Ile Ser Lys Asn Gly Gln Thr Arg Glu His Ala Leu  
                     20                    25                    30  
 Leu Ala Tyr Thr Leu Gly Val Lys Gln Leu Ile Val Gly Xaa Asn Lys  
                     35                    40                    45  
 Met Asp Ser Thr Glu Pro Pro Tyr Ser Gln Lys Arg Tyr Glu Glu Ile  
                     50                    55                    60  
 Xaa Lys Glu Val Ser Thr Tyr Xaa  
                     65                    70

<210> 1506  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 1506  
 Ala Glu Thr Arg Lys Arg Lys Gly Leu Lys Glu Gly Ile Pro Ala Leu  
                     1                    5                    10                    15  
 Asp Asn Phe Leu Asp Lys Leu  
                     20

<210> 1507  
 <211> 87  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (79)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1507  
 Lys Leu Pro Leu Lys Ala Lys Met Gly Lys Glu Lys Thr His Ile Asn  
                     1                    5                    10                    15  
 Ile Val Val Ile Gly His Val Asp Ser Gly Lys Ser Thr Thr Thr Gly  
                     20                    25                    30  
 His Leu Ile Tyr Lys Cys Gly Gly Ile Asp Lys Arg Thr Ile Glu Lys  
                     35                    40                    45  
 Phe Glu Lys Glu Ala Ala Glu Met Gly Lys Gly Ser Phe Lys Tyr Ala  
                     50                    55                    60

1574

Trp Val Leu Asp Lys Leu Lys Ala Glu Arg Glu Arg Gly Ile Xaa Ile  
 65 70 75 80

Gly Tyr Leu Leu Val Glu Ile  
 85

&lt;210&gt; 1508

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (96)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (108)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1508

Pro Asp Pro Xaa Ile Phe Ala Pro Pro Ile Ser Ala Pro Pro Pro Ser  
 1 5 10 15

Ser Gly Thr Arg Asp Arg Ser Gln Arg Ser Leu Asp His Tyr Glu Pro  
 20 25 30

Pro Val Gln Pro Arg Gly Pro Cys Pro Arg Ser Phe Glu Leu Leu Val  
 35 40 45

Arg Ala Val Gly Ala Ala Ala Ala Asp Ala Ala Arg Ala His Arg  
 50 55 60

1575

Gln Arg Trp Ser Cys Arg Cys Cys Val Xaa Arg Ala Ala Leu Pro Phe  
65 70 75 80

Val Tyr Arg Pro Arg Lys Glu Ser Ile Pro Lys Met Ile Ser Asn Xaa  
85 90 95

Gln Val Xaa Ala Ile Gly Pro Thr Val Leu Gln Xaa Gly Lys  
100 105 110

&lt;210&gt; 1509

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1576

&lt;400&gt; 1509

Ser Phe Val Glu Leu Pro Leu Ala Ser Ile Val Ser Leu His Ala Ser  
 1 5 10 15

Ser Xaa Gly Gly Arg Leu Gln Thr Ser Pro Xaa Pro Ile Gln Xaa Thr  
 20 25 30

Pro Pro Lys Asp Thr Cys Ser Pro Xaa Leu Xaa Met Ser Leu Xaa Pro  
 35 40 45

Xaa Lys Leu Cys Arg Arg Arg His Gly Pro Trp Tyr  
 50 55 60

&lt;210&gt; 1510

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (91)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (92)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (108)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (115)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1510

Gly Thr Ser Ser Ser Gln Arg Phe Tyr Lys Glu Asn Leu Gly Gln Gly  
 1 5 10 15

Trp Met Thr Gln Lys His Glu Arg Met Lys Val Tyr Val Pro Thr Gly  
 20 25 30

Phe Ser Ala Phe Pro Phe Glu Leu His Thr Pro Glu Lys Trp Val  
 35 40 45

Arg Phe Lys Tyr Pro Lys Leu Ile Ser Tyr Ser Tyr Met Val Arg Gly



1577

50                      55                      60  
 Gly His Phe Ala Ala Phe Glu Glu Pro Glu Leu Leu Ala Gln Asp Ile  
 65                      70                      75                      80  
 Arg Lys Phe Leu Ser Val Leu Glu Arg His Xaa Xaa Thr Pro Leu Pro  
                     85                      90                      95  
 Pro Leu Ala Thr Ser Pro His Asn Ala Leu Gln Xaa Phe Leu Gly Glu  
                     100                      105                      110  
 Asp Asn Xaa Phe  
                     115

&lt;210&gt; 1511

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (143)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1511

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Xaa Gly Arg Ser Arg Thr  
 1                      5                      10                      15

Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Arg Asp Arg Gly Gly  
                     20                      25                      30

Phe Pro Pro Arg Gly Pro Arg Gly Ser Arg Gly Asn Pro Ser Gly Gly  
                     35                      40                      45

Gly Asn Val Gln His Arg Ala Gly Asp Trp Gln Cys Pro Asn Pro Ser  
                     50                      55                      60

Ile Gly Asp Phe Cys Cys Asp Val Ile Val Cys Arg Gly Cys Gly Asn  
                     65                      70                      75                      80

1578

Gln Asn Phe Ala Trp Arg Thr Glu Cys Asn Gln Cys Gly Asp Arg Gly  
85 90 95

Arg Gly Gly Pro Gly Gly Met Xaa Gly Gly Arg Gly Gly Leu Met Asp  
100 105 110

Arg Gly Gly Pro Gly Gly Met Phe Arg Gly Gly Arg Gly Gly Asp Arg  
115 120 125

Gly Gly Phe Arg Gly Gly Arg Gly Met Asp Arg Gly Gly Phe Xaa Gly  
130 135 140

Gly Arg Arg Gly Gly Pro Gly Gly Pro Leu Asp Leu  
145 150 155

&lt;210&gt; 1512

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (89)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

1579

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1512

Pro Met Arg Arg Pro Arg Gly Glu Pro Ala Pro Gly Pro Arg Asp Arg  
 1 5 10 15

Leu Arg Glu Arg Pro Ala Gln Gly Pro Gly Ser His Val Arg Val Ala  
 20 25 30

Pro Leu Ala Thr Val Asn Ile Leu Xaa Ser Leu Cys Gln Leu Arg Cys  
 35 40 45

Leu Pro Phe Xaa Ala Leu His Phe Val Xaa Ser Pro Gly Phe Ile Xaa  
 50 55 60

Tyr Ile Ser Gly Thr Pro His Ala Leu Ile Val Arg Arg Tyr Leu Ser  
 65 70 75 80

Leu Leu Asp Thr Ala Val Glu Leu Xaa Leu Pro Arg Tyr Arg Gly Pro  
 85 90 95

Arg Leu Pro Arg Xaa Gln  
 100

&lt;210&gt; 1513

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (131)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1513

Glu Thr Glu Arg Gly Phe Glu Glu Leu Pro Leu Cys Ser Cys Arg Met  
 1 5 10 15

Glu Ala Pro Lys Ile Asp Ser Ile Ser Glu Arg Ala Gly His Lys Cys  
 20 25 30

Met Ala Thr Glu Ser Val Asp Gly Glu Leu Ser Gly Cys Asn Ala Ala  
 35 40 45

Ile Leu Lys Arg Glu Thr Met Arg Pro Ser Ser Arg Val Ala Leu Met  
 50 55 60

Val Leu Cys Glu Thr His Arg Ala Arg Met Val Lys His His Cys Cys  
 65 70 75 80

1580

Pro Gly Cys Gly Tyr Phe Cys Thr Ala Gly Thr Phe Leu Glu Cys His  
85 90 95

Pro Asp Phe Arg Val Ala His Arg Phe His Lys Ala Cys Val Ser Gln  
100 105 110

Leu Asn Gly Met Val Phe Cys Pro His Cys Gly Glu Asp Thr Ser Glu  
115 120 125

Ala Gln Xaa Val Thr Ile Pro Gly Val Thr Gly  
130 135

<210> 1514

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1581

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<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (60)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>  
<221> SITE  
<222> (68)  
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>  
<221> SITE  
<222> (70)  
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 1514
Ile Arg His Glu Ser Ile Ser Gly Ala Ser Xaa Lys Asp Ile Val His
  1                      5                      10                      15
Ser Gly Xaa Ala Tyr Thr Xaa Glu Xaa Ser Ala Arg Gln Xaa Met Arg
      20                      25                      30
Thr Ala Met Lys Xaa Asn Leu Gly Xaa Asp Leu Arg Thr Ala Ser Tyr
      35                      40                      45
Xaa Asn Ala Ile Xaa Xaa Val Phe Lys Val Tyr Xaa Glu Ala Gly Val
      50                      55                      60
Thr Phe Thr Xaa Met Xaa His Gly
      65                      70

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1582

&lt;210&gt; 1515

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (85)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1515

Leu Tyr Pro Pro Ala Cys Ser Ala Thr Arg Thr Pro Ser Thr Met Thr  
1 5 10 15

Thr Ser Ala Ser Ser His Leu Asn Lys Gly Ile Lys Gln Val Tyr Met  
20 25 30

Ser Leu Pro Gln Gly Glu Lys Val Gln Ala Met Tyr Ile Trp Ile Asp  
35 40 45

Gly Thr Gly Glu Gly Leu Arg Cys Lys Thr Arg Thr Leu Asp Ser Glu  
50 55 60

Pro Lys Cys Val Glu Glu Leu Pro Glu Trp Asn Phe Asp Gly Ser Ser  
65 70 75 80

Thr Xaa Gln Ser Xaa Gly Ser Ser  
85

&lt;210&gt; 1516

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1583

<220>  
 <221> SITE  
 <222> (11)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (27)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (38)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (87)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (89)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (94)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (103)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1516  
 Gly Arg Glu Ser Gln Asp Thr Xaa Phe Xaa Xaa Leu Val Glu Arg Val  
 1 5 10 15  
 Ile Gln Gln Leu Glu Gly Ala Phe Ala Leu Xaa Phe Lys Ser Val His  
 20 25 30  
 Phe Pro Gly Gln Ala Xaa Gly Thr Arg Arg Gly Ser Pro Leu Leu Ile  
 35 40 45  
 Gly Val Arg Ser Glu His Lys Leu Ser Thr Asp His Ile Pro Ile Leu  
 50 55 60  
 Tyr Arg Thr Gly Lys Asp Lys Lys Gly Ser Cys Asn Leu Ser Arg Val  
 65 70 75 80

1584

Asp Ser Thr Thr Cys Leu Xaa Pro Xaa Glu Glu Lys Ala Xaa Glu Tyr  
85 90 95

Tyr Phe Ala Ser Asp Ala Xaa Ala Ala  
100 105

&lt;210&gt; 1517

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE



1585

&lt;222&gt; (100)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (106)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (109)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (110)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1517

Gly	Xaa	Glu	Lys	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Leu	Val	Ile	Arg	Gln
1				5					10					15	

Xaa	Pro	Xaa	Val	Gln	Xaa	Leu	Gln	Ala	Tyr	Lys	Pro	Arg	Glu	Asn	Asp
			20					25						30	

Xaa	Leu	Ala	Leu	Glu	Lys	Ala	Asp	Val	Val	Met	Val	Thr	His	Gln	Ser
		35					40						45		

Ser	Ala	Arg	Leu	Ala	Gly	Gly	Arg	Glu	Ala	Leu	Arg	Arg	Gly	Ala	Arg
		50				55						60			

Leu	Val	Ser	Cys	Asp	Ser	Xaa	Xaa	Ser	Ser	Phe	Pro	Thr	Gln	Arg	Ser
	65					70					75			80	

Val	Thr	Gln	Asn	Leu	Lys	Gly	Ser	Phe	Ile	Glu	Cys	Lys	Thr	Cys	Gln
				85						90				95	

Thr	Thr	Ala	Xaa	Gly	Asn	Ser	Lys	Pro	Xaa	Phe	Ser	Xaa	Xaa	Glu	Gly
				100					105					110	

Val	Phe	Val	Ser	Trp	Lys	Asn	Lys	Leu
		115					120	

&lt;210&gt; 1518

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1586

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (132)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (138)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1518

Arg	Gly	Pro	Ala	Gln	Arg	Gly	Glu	Gly	Ala	Arg	Glu	Ala	Asn	Lys	Lys
1				5					10					15	

Ile	Glu	Lys	Gln	Leu	Gln	Lys	Asp	Lys	Gln	Val	Tyr	Arg	Ala	Thr	His
	20							25						30	

Arg	Leu	Leu	Leu	Leu	Gly	Ala	Gly	Glu	Ser	Gly	Lys	Ser	Thr	Ile	Val
	35						40					45			

Lys	Gln	Met	Arg	Ile	Leu	His	Val	Asn	Gly	Phe	Asn	Gly	Asp	Ser	Glu
	50					55					60				

Lys	Ala	Thr	Lys	Val	Gln	Xaa	Ile	Lys	Asn	Asn	Leu	Lys	Glu	Ala	Ile
65					70					75					80

Glu	Thr	Ile	Val	Ala	Ala	Met	Ser	Asn	Leu	Val	Pro	Pro	Val	Glu	Leu
			85						90					95	

Ala	Asn	Pro	Glu	Asn	Gln	Phe	Arg	Val	Asp	Tyr	Ile	Leu	Ser	Val	Met
		100						105					110		

Asn	Val	Pro	Asp	Phe	Xaa	Phe	Pro	Pro	Glu	Phe	Tyr	Glu	His	Ala	Lys
		115					120					125			

Ala	Leu	Trp	Xaa	Asp	Glu	Xaa	Val	Arg	Xaa	Cys	Tyr	Glu	Arg	Ser	Asn
	130						135					140			

1587

Glu Tyr  
145

<210> 1519  
<211> 137  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (72)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1519  
Asp Ser Gln Arg Gln Ala Thr Lys Asp Ala Gly Val Ile Ala Gly Leu  
1 5 10 15  
Asn Val Leu Arg Ile Ile Asn Glu Pro Thr Ala Ala Ala Ile Ala Tyr  
20 25 30  
Gly Leu Asp Arg Thr Gly Lys Gly Glu Arg Asn Val Leu Ile Phe Asp  
35 40 45  
Leu Gly Gly Gly Thr Phe Asp Val Ser Ile Leu Thr Ile Asp Asp Gly  
50 55 60  
Ile Phe Glu Val Lys Ala Thr Xaa Gly Asp Thr His Leu Gly Gly Glu  
65 70 75 80  
Asp Phe Asp Asn Arg Leu Val Asn His Phe Val Glu Glu Phe Lys Arg  
85 90 95  
Lys His Lys Lys Asp Ile Ser Gln Asn Lys Arg Ala Val Arg Arg Leu  
100 105 110  
Arg Thr Ala Ala Arg Gly Pro Arg Gly Pro Cys Arg Pro Ala Pro Arg  
115 120 125  
Pro Ala Trp Arg Ser Thr Ser Leu Phe  
130 135

<210> 1520  
<211> 100  
<212> PRT  
<213> Homo sapiens

1588

<220>  
 <221> SITE  
 <222> (16)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (19)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (45)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (99)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1520  
 Cys Arg Lys Ser Ser Trp Lys Arg Trp Trp Pro Gln Ser Lys Leu Xaa  
   1                  5                  10                  15  
 Thr Arg Xaa Ile Val Thr Ile Gly Ile Lys Ala Met Ala Thr Met Asp  
                   20                  25                  30  
 Ile Thr Ala Lys Val Thr Val Val Met Glu Asp Met Xaa Tyr Thr Gly  
           35                  40                  45  
 Tyr Asn Asn Tyr Tyr Gly Tyr Gly Asp Tyr Ser Asn Gln Gln Ser Gly  
       50                  55                  60  
 Tyr Gly Lys Val Ser Arg Arg Gly Gly His Gln Asn Ser Tyr Lys Pro  
       65                  70                  75                  80  
 Tyr Leu Asn Tyr Ser Ile Cys Asn Leu Ser Pro Thr Gly Gly Glu Ala  
           85                  90                  95  
 Tyr Phe Xaa Ile  
           100

<210> 1521  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE

1589

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (110)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (111)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1521

Asp	Ala	Trp	Ala	Leu	Ala	Pro	Gly	Pro	Val	Leu	Phe	Ser	Asn	Met	Val
1				5					10					15	

Cys	Leu	Lys	Phe	Pro	Gly	Ser	Ser	Cys	Met	Ala	Ala	Leu	Thr	Val	Thr
			20					25					30		

Leu	Met	Val	Leu	Asn	Ser	Pro	Leu	Ala	Leu	Ala	Gly	Asp	Thr	Arg	Pro
		35					40					45			

Arg	Phe	Leu	Glu	Gln	Val	Lys	His	Glu	Cys	His	Phe	Phe	Asn	Gly	Thr
	50					55					60				

Glu	Arg	Val	Arg	Phe	Leu	Asp	Xaa	Tyr	Phe	Tyr	His	Gln	Glu	Glu	Tyr
65					70					75				80	

Val	Arg	Phe	Asp	Ser	Asp	Val	Gly	Glu	Tyr	Arg	Ala	Val	Thr	Xaa	Leu
			85						90					95	

Gly	Arg	Pro	Asn	Ser	Glu	Tyr	Trp	Asn	Ser	Gln	Lys	Asp	Xaa	Xaa	Asp
		100						105					110		

Arg	Ser	Gly	Pro	Arg	Trp	Thr	Pro	Thr	Ala	Xaa	Thr	Leu	Arg	Gly	Trp
		115					120					125			

Val

1590

<210> 1522  
<211> 113  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (2)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (6)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (40)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (44)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (53)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (58)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (65)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (67)  
<223> Xaa equals any of the naturally occurring L-amino acids

1591

<220>  
 <221> SITE  
 <222> (74)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (80)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (90)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (93)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (97)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (110)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1522  
 Xaa Xaa Thr Asp Ser Xaa Arg Pro Asp Ser Arg Val Asp Pro Arg Val  
 1 5 10 15  
 Arg Glu Val Thr Asp Tyr Ala Ile Ala Arg Arg Ile Val Asp Leu His  
 20 25 30  
 Ser Arg Ile Glu Glu Ser Ile Xaa Asn Ile Tyr Xaa Leu Asp Asp Ile  
 35 40 45  
 Arg Arg Tyr Leu Xaa Tyr Ala Arg Lys Xaa Lys Pro Lys Asn Ser Lys  
 50 55 60  
 Xaa Ser Xaa Asp Phe Ile Val Glu Gln Xaa Lys His Leu Arg Pro Xaa  
 65 70 75 80  
 Asp Gly Phe Trp Ser Ser Pro Val Phe Xaa Glu Gly Xaa Ser Cys Gly  
 85 90 95  
 Xaa Ile Glu Gly Leu Gly Ser Val Ser Leu Gly Ser Gln Xaa Leu Arg

1592

100

105

110

Val

&lt;210&gt; 1523

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1523

Pro Cys Lys Gly Ser Ile Ile Thr Trp Ser Leu Ile Arg Asp Leu Xaa

1

5

10

15

Glu Trp Leu His Glu Gly Gln Leu Ala Leu Thr Phe Asn Gln Xaa Asn

20

25

30

&lt;210&gt; 1524

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1524

Pro Cys Lys Gly Ser Ile Ile Thr Cys Ser Leu Asn Arg Asp Leu Tyr

1

5

10

15

Glu Trp Leu His Glu Gly Ser Ala Val Ser Tyr Phe

20

25

&lt;210&gt; 1525

&lt;211&gt; 92

&lt;212&gt; PRT



1593

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (92)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1525

Xaa Glu Gln Lys Leu Xaa Leu His Arg Gly Gly Gly Arg Ser Arg Thr

1

5

10

15

1594

Ser Gly Ser Pro Xaa Leu Xaa Glu Phe Gly Thr Ser Gly Thr Arg Pro  
                   20                  25                  30  
 Cys Gly Val Tyr Thr Pro Arg Cys Gly Ser Gly Leu Leu Cys Tyr Pro  
                   35                  40                  45  
 Pro Arg Gly Val Glu Lys Pro Leu His Thr Leu Met His Gly Gln Gly  
                   50                  55                  60  
 Val Cys Met Glu Leu Ala Xaa Ile Glu Ala Xaa Xaa Glu Ser Leu Xaa  
                   65                  70                  75                  80  
 Pro Ser Asp Lys Asp Glu Gly Asp His Pro Asn Xaa  
                   85                  90

&lt;210&gt; 1526

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1526

Xaa Glu Pro Ser Pro Gly Ile Phe Arg Trp Phe His Leu Val Asn Arg  
           1                  5                  10                  15  
 Thr Glu Gln Arg Glu Leu Thr Met Glu Phe Gly Leu Ser Trp Leu Phe  
                   20                  25                  30  
 Leu Val Ala Ile Leu Lys Gly Val Gln Cys Glu Val Gln Leu Val Glu  
                   35                  40                  45  
 Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys  
                   50                  55                  60  
 Thr Val Ser Gly Phe Thr Phe Arg Asn Tyr Ala Met Ser Trp Val Arg  
                   65                  70                  75                  80  
 Gln Gly Pro Gly Lys Gly Leu Glu Trp Val Ser Ala Ile Asp Gly Ser  
                   85                  90                  95

1595

Gly Tyr Asn Thr Tyr Tyr Glu Arg Ser Leu Gln Gly Arg Phe Ser Val  
                   100                  105                  110  
 Ser Arg Asp Asn Ser Xaa Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu  
                   115                  120                  125  
 Gly Ala Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Lys Thr Glu Arg Met  
                   130                  135                  140  
 Gly Thr Gly Trp Tyr Gly Arg Asn Asp Tyr  
                   145                  150

&lt;210&gt; 1527

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (129)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (133)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (134)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1527

Gly Lys Leu Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp  
           1                  5                  10                  15

Pro Arg Val Arg Thr Val Thr Pro Gly Glu Thr Ala Ser Ile Ser Cys  
                   20                  25                  30

Arg Ser Ser Gln Thr Leu Leu His Val Asn Gly His Asn Tyr Leu Asp  
                   35                  40                  45

Trp Tyr Met Gln Lys Pro Gly Gln Pro Pro Gln Leu Val Val Tyr Arg  
           50                  55                  60

1596

Gly Ser Asn Arg Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Gly Gly  
 65 70 75 80  
 Ser Gly Thr Asp Phe Thr Leu Arg Ile Thr Thr Val Glu Ala Xaa Asp  
 85 90 95  
 Val Gly Val Tyr Tyr Cys Met Gln Ala Leu Gln Ser Pro Tyr Thr Phe  
 100 105 110  
 Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Gly Cys Thr Ile  
 115 120 125  
 Xaa Leu His Leu Xaa Xaa Ile  
 130 135

&lt;210&gt; 1528

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (137)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1528

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr  
 1 5 10 15  
 Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Gly Trp Ala Leu  
 20 25 30  
 Arg Ile Ser Arg Phe Leu Pro Gly Phe His Ser Phe Ala Pro Cys Thr  
 35 40 45  
 Val Ala Pro Ser Leu Arg Ala Gln Pro Ala Lys Gln Arg Ala Pro Val  
 50 55 60  
 Ala Gly Val Met Gln Arg Ala Arg Pro Thr Leu Trp Ala Ala Ala Leu  
 65 70 75 80  
 Thr Leu Leu Val Leu Leu Arg Gly Pro Pro Val Ala Arg Ala Gly Ala  
 85 90 95

1597

Ser Ser Gly Gly Leu Gly Pro Val Val Arg Cys Glu Pro Cys Asp Ala  
100 105 110

Arg Ala Leu Ala Xaa Cys Ala Pro Ser Ala Arg Arg Val Arg Arg Asn  
115 120 125

Leu Val Arg Gln Ala Gly Leu Ala Xaa Ala Ala  
130 135

&lt;210&gt; 1529

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1529

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Ile Asp Asp Thr Asn  
1 5 10 15

Ile Thr Arg Leu Gln Leu Glu Thr Glu Ile Glu Ala Leu Lys Glu Glu  
20 25 30

Leu Leu Phe Met Lys Lys Asn His Glu Glu Glu Val Lys Gly Leu Gln  
35 40 45

Ala Gln Ile Ala Ser Ser Gly Leu Thr Val Glu Val Asp Ala Pro Lys  
50 55 60

Ser Gln Asp Leu Ala Lys Ile Met Ala Asp Ile Arg Ala Gln Tyr Asp  
65 70 75 80

Glu Leu Ala Arg Lys Asn Arg Glu Glu Leu Asp Lys Tyr Trp Ser Gln  
85 90 95

Gln Ile Glu Glu Ser Thr Thr Val Val Thr Thr Gln Ser Ala Glu Val  
100 105 110

Gly Ala Ala Glu Thr Thr Leu Thr Glu Leu Arg Arg Thr Val Gln Ser  
115 120 125

Leu Glu Ile Asp Leu Gly Leu  
130 135

&lt;210&gt; 1530

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1598

&lt;400&gt; 1530

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Gln Val Pro Ala Arg  
1 5 10 15

Lys Lys Arg Pro Lys Arg Leu Arg Thr Gly Asn Met Val Arg Ser Gly  
20 25 30

Asn Lys Ala Ala Val Val Leu Cys Met Asp Val Gly Phe Thr Met Ser  
35 40 45

Asn Ser Ile Pro Gly Ile Glu Ser Pro Phe Glu Gln Ala Lys Lys Val  
50 55 60

Ile Thr Met Phe Val Gln Arg Gln Val Phe Ala Glu Asn Lys Asp Glu  
65 70 75 80

Ile Ala Leu Val Leu Phe Gly Thr Asp Gly Thr Asp Asn Pro Leu Ser  
85 90 95

Gly Gly Asp Gln Tyr Gln Asn Ile Thr Val His Arg His Leu Met Leu  
100 105 110

Pro Asp Phe Asp Leu Leu Glu Asp Ile Glu Lys Gln Asn Pro Thr Arg  
115 120 125

Phe Ser Thr Gly  
130

&lt;210&gt; 1531

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1599

<220>  
 <221> SITE  
 <222> (61)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (69)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (75)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (78)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (94)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1531  
 Arg Lys Arg Leu Lys Gly Glu Glu Gln Lys Leu Leu Arg Asn Ala Arg  
     1                    5                    10                    15  
 Arg Xaa Gln Lys Met Ala Cys Gln Met Thr Xaa Asn His Ser Ser Val  
             20                    25                    30  
 Ser Xaa Leu Lys Gly Ser Ser Leu Gln Asp Arg Arg Ala Ser Arg Phe  
             35                    40                    45  
 Leu Ile Lys Ser Val Gln Lys Ser Ser Gly Val Gln Xaa Asp Pro Ser  
     50                    55                    60  
 Ser Ser Ile Ser Xaa Pro Ser Leu Thr Ala Xaa Trp Ser Xaa Leu Pro  
     65                    70                    75                    80  
 Trp His Leu Arg Gly Pro Lys Ala Ala Lys Thr Leu Lys Xaa  
             85                    90

<210> 1532  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

1600

&lt;400&gt; 1532

Gln Thr Thr Met Cys Tyr Gly Lys Cys Ala Arg Cys Ile Gly His Ser  
 1 5 10 15

Leu Val Gly Leu Ala Leu Leu Cys Ile Ala Ala Asn Ile Leu Leu Tyr  
 20 25 30

Phe Pro Asn Gly Glu Thr Lys Tyr Ala Ser Glu Asn His Leu Ser Arg  
 35 40 45

Phe Val Trp Phe Phe Ser Gly Ile Val Gly Gly Gly Leu Leu Met Leu  
 50 55 60

Leu Pro Ala Phe Val Phe Ile Gly Leu Glu Gln Asp Asp Cys Cys Gly  
 65 70 75 80

Cys Cys Gly His Glu Asn Cys Gly Lys Arg Cys Ala Met Leu Ser Ser  
 85 90 95

Val Leu Ala Ala Leu Ile Gly Ile Ala Gly Ser Gly Tyr Cys Val Ile  
 100 105 110

Val Ala Ala Leu Gly Leu Ala Glu Gly Pro Leu Cys Leu Asp Ser Leu  
 115 120 125

Gly Gln Trp Asn Tyr Thr Phe Ala Ser Thr Glu Gly Gln Val Pro Ser  
 130 135 140

Gly Tyr Leu His Met Val Arg Val His  
 145 150

&lt;210&gt; 1533

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1533

Leu Cys Leu Leu Arg Thr Thr Val Thr Glu Val Ser Arg Ala Phe Ser  
 1 5 10 15

Leu Leu Cys Lys Met Ala Thr Leu Lys Glu Lys Leu Ile Ala Pro Val  
 20 25 30

Ala Glu Glu Glu Ala Thr Val Pro Asn Asn Lys Ile Thr Val Val Gly  
 35 40 45

Val Gly Gln Val Gly Met Ala Cys Ala Ile Ser Ile Leu Gly Lys Ser  
 50 55 60



1601

Leu Ala Asp Glu Leu Ala Leu Val Asp Val Leu Glu Asp Lys Leu Lys  
 65 70 75 80  
 Gly Glu Met Met Asp Leu Gln His Gly Ser Leu Phe Leu Gln Thr Pro  
 85 90 95  
 Lys Ile Leu Ala Asp Lys Asp Tyr Ser Val Thr Ala Asn Ser Lys Ile  
 100 105 110  
 Val Val Val Thr Ala Gly Val Arg Gln Gln Glu Gly Glu Ser Arg Leu  
 115 120 125  
 Asn Leu Val Gln Arg Asn Val Asn Val Phe Lys Phe Ile Ile  
 130 135 140

&lt;210&gt; 1534

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1534

Ala His Cys His Ala Pro Pro Thr Thr Ala Arg Arg Ala Phe Pro Ile  
 1 5 10 15

Pro Phe Gly Ser Lys Ser Asn Met Ala Thr Leu Lys Asp Gln Leu Ile  
 20 25 30

Tyr Asn Leu Leu Lys Glu Glu Gln Thr Xaa Gln Asn Lys Ile Thr Xaa  
 35 40 45

1602

Val Gly Val Gly Ala Xaa Gly Met Ala Cys Ala Ile Xaa Ile Leu Met  
 50 55 60

Lys Asp Leu  
 65

&lt;210&gt; 1535

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1535

Xaa Lys Lys Tyr Leu Gly Asp Xaa Ile Glu Gly Thr Pro Ala Gly Thr  
 1 5 10 15

Gly Pro Glu Phe Pro Gly Leu Leu Thr Cys Leu Leu Gln Leu Ile Met  
 20 25 30

Val Thr Asn Lys Ala Ile Ala Ser Gln Ile Ser Gln Ile Lys His Phe  
 35 40 45

Phe His Cys Ile Leu Val Val Val Cys Pro Asn Ser Ser Met Tyr Leu  
 50 55 60

Ile Met Ser Gly Ser Ile Leu His  
 65 70

&lt;210&gt; 1536

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1603

<220>  
 <221> SITE  
 <222> (45)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (50)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (58)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (68)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1536

Gly Lys Ala Trp Gly Ser Glu Cys Glu Lys Cys Pro Leu Pro Gly Thr  
 1 5 10 15

Glu Ala Phe Xaa Glu Ile Cys Pro Ala Gly His Gly Tyr Thr Tyr Ala  
 20 25 30

Ser Ser Asp Ile Arg Leu Ser Met Arg Lys Ala Glu Xaa Glu Glu Leu  
 35 40 45

Ala Xaa Pro Pro Arg Glu Gln Gly Gln Xaa Ser Ser Trp Ala Leu Pro  
 50 55 60

Gly Pro Thr Xaa Lys Gln Pro Leu Arg Val Arg His Gly His Leu Ala  
 65 70 75 80

<210> 1537  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (58)  
 <223> Xaa equals any of the naturally occurring L-amino acids

1604

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (134)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (137)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1537

Arg	Lys	Gln	Cys	Gln	Asp	Ser	Lys	Asp	Ser	Asn	His	Leu	Pro	Lys	Met
1				5						10				15	

Ser	Leu	Ser	Ala	Phe	Thr	Leu	Phe	Leu	Ala	Leu	Ile	Gly	Gly	Thr	Ser
			20					25						30	

Gly	Gln	Tyr	Tyr	Asp	Tyr	Asp	Phe	Pro	Leu	Ser	Ile	Tyr	Gly	Gln	Ser
		35					40					45			

Ser	Pro	Asn	Cys	Ala	Pro	Glu	Cys	Asn	Xaa	Pro	Glu	Ser	Tyr	Pro	Ser
		50					55					60			

Ala	Met	Tyr	Cys	Asp	Glu	Leu	Lys	Leu	Xaa	Ser	Val	Pro	Met	Val	Pro
65					70					75					80

Pro	Gly	Ile	Lys	Tyr	Leu	Tyr	Leu	Arg	Asn	Asn	Gln	Ile	Asp	His	Ile
			85						90					95	

Asp	Glu	Lys	Ala	Phe	Glu	Asn	Val	Thr	Asp	Leu	Gln	Trp	Leu	Ile	Leu
			100						105				110		

Asp	His	Asn	Leu	Leu	Glu	Asn	Ser	Lys	Xaa	Lys	Gly	Arg	Val	Phe	Ser
		115					120					125			

1605

Lys Leu Lys Gln Leu Xaa Lys Xaa Xaa  
 130 135

<210> 1538  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (134)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (137)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1538  
 Tyr Gln Val Tyr Ser Lys Ile Gln Ala Thr Asn Thr Trp Leu Phe Leu  
 1 5 10 15  
 Ser Ser Cys Asn Gly Asn Glu Thr Ser Leu Trp Asp Cys Lys Asn Trp  
 20 25 30  
 Gln Trp Gly Gly Leu Thr Cys Asp His Tyr Glu Glu Ala Lys Ile Thr  
 35 40 45  
 Cys Ser Ala His Arg Glu Pro Arg Leu Val Gly Gly Asp Ile Pro Cys  
 50 55 60  
 Ser Gly Arg Val Glu Val Lys His Gly Asp Thr Trp Gly Ser Ile Cys  
 65 70 75 80  
 Asp Ser Asp Phe Ser Leu Glu Ala Ala Ser Val Leu Cys Arg Glu Leu  
 85 90 95  
 Gln Cys Gly Thr Val Val Ser Ile Leu Gly Gly Ala His Phe Gly Glu  
 100 105 110  
 Gly Met Asp Arg Ser Gly Leu Lys Asn Ser Ser Val Glu Gly His Glu  
 115 120 125  
 Ser Pro Ser Phe Ile Xaa Pro Val Xaa Thr Pro Pro Lys Arg Asn Leu  
 130 135 140

1606

&lt;210&gt; 1539

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1539

Asn Met Ala Gly Val Glu Glu Val Ala Ala Ser Gly Ser His Leu Asn  
1 5 10 15

Gly Asp Leu Asp Pro Asp Asp Arg Glu Glu Gly Ala Ala Ser Thr Ala  
20 25 30

Glu Glu Xaa Ala Lys Lys Lys Arg Arg Lys Lys Lys Lys Ser Lys Gly  
35 40 45

Pro Ser Ala Gly Lys Glu Ser Phe Met Phe Ser Gln Ser Pro Pro Gly  
50 55 60

Thr Ala Glu Leu Phe Gly Ser Gly Pro Leu Arg Gly Pro Gly Pro Gly  
65 70 75 80

Pro Gln Ser Pro Asp  
85

&lt;210&gt; 1540

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

1607

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1540

Gly	Val	Gly	Phe	Arg	Glu	Gly	Thr	Xaa	Gly	Ala	Gln	Thr	Gln	Arg	Ile
1				5				10					15		

Arg	Xaa	Arg	Val	Pro	Xaa	Asn	Trp	Lys	Met	Xaa	Phe	Glu	Pro	Ile	Ser
			20					25					30		

Ser	Thr	Lys	Phe
			35

<210> 1541

<211> 144

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1608

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (131)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (132)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (143)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1541

Arg	Thr	Xaa	Ala	Xaa	Gly	Glu	Arg	Ala	Cys	Arg	Ser	Thr	Leu	Val	Asp
1				5					10					15	

Pro	Lys	Xaa	Val	Xaa	Thr	Val	Phe	Ser	Leu	Gly	Ala	Cys	Met	Glu	Gly
			20					25					30		

Leu	Asn	Ile	Leu	Leu	Asn	Arg	Leu	Leu	Gly	Ile	Ser	Leu	Tyr	Ala	Glu
	35					40						45			

Gln	Pro	Ala	Lys	Gly	Glu	Val	Trp	Ser	Glu	Asp	Val	Arg	Lys	Leu	Ala
	50					55					60				

Val	Val	His	Glu	Ser	Glu	Gly	Leu	Leu	Gly	Tyr	Ile	Tyr	Cys	Asp	Phe
65					70					75				80	

Phe	Gln	Arg	Ala	Asp	Lys	Pro	His	Gln	Asp	Cys	His	Phe	Thr	Ile	Arg
				85					90					95	

Gly	Gly	Arg	Leu	Lys	Gly	Arg	Trp	Glu	Thr	Xaa	Gln	Leu	Pro	Val	Val
			100					105						110	

Ser	Ser	Tyr	Ala	Gly	Ile	Phe	Pro	Val	Pro	Xaa	Arg	Glu	Phe	Ser	Asn
		115					120					125			

Phe	Gly	Xaa	Xaa	Leu	Gly	Met	Met	Gly	Lys	Pro	Phe	Pro	Gly	Xaa	Gly
	130					135						140			



1609

&lt;210&gt; 1542

&lt;211&gt; 145

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1542

Ala Glu Arg Thr Pro Cys Arg Arg Pro Ala Glu Met Leu Arg Leu Pro  
 1 5 10 15

Thr Val Phe Arg Gln Met Arg Pro Val Ser Arg Val Leu Ala Pro His  
 20 25 30

Leu Thr Arg Ala Tyr Ala Lys Xaa Val Lys Phe Gly Ala Asp Ala Arg  
 35 40 45

Ala Leu Met Leu Gln Gly Val Asp Leu Leu Ala Asp Ala Val Ala Val  
 50 55 60

Thr Met Gly Pro Lys Gly Arg Thr Val Ile Ile Glu Gln Ser Trp Gly  
 65 70 75 80

Ser Pro Lys Val Thr Lys Asp Gly Val Thr Val Ala Lys Ser Ile Asp  
 85 90 95

Leu Lys Asp Lys Tyr Lys Asn Ile Gly Ala Lys Leu Val Gln Asp Val  
 100 105 110

Ala Asn Asn Thr Asn Glu Glu Ala Gly Asp Gly Thr Thr Thr Ala Thr  
 115 120 125

Val Leu Ala Arg Ser Ile Ala Lys Glu Gly Phe Glu Lys Ile Ser Lys  
 130 135 140

Gly

145

&lt;210&gt; 1543

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1543

Lys Phe Gly Ala Asp Ala Arg Ala Leu Met Leu Gln Gly Val Asp Leu  
 1 5 10 15

1610

Leu Ala Asp Ala Val Ala Val Thr Met Gly Pro Lys Gly Arg Thr Val  
20 25 30

Ile Ile Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp Gly Val  
35 40 45

Thr Val Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly  
50 55 60

Ala Lys Leu Val Gln Asp Val Ala Asn Asn Thr Asn Glu Glu Ala Gly  
65 70 75 80

Asp Gly Thr Thr Thr Ala Thr Val Leu Ala Arg Ser Ile Ala Lys Glu  
85 90 95

Gly Phe Glu Lys Ile Ser Lys Gly Ala Asn Pro Val Glu Ile Arg Arg  
100 105 110

Gly Val Met Leu Ala Val Asp Ala Val Ile Ala Glu Leu Lys Lys Gln  
115 120 125

Ser Lys Pro Val Thr Thr Pro  
130 135

&lt;210&gt; 1544

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (68)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (77)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1611

&lt;400&gt; 1544

Cys Glu Phe Lys Arg Val Pro Gln Cys Pro Ser Gly Arg Val Tyr Val  
1 5 10 15

Leu Lys Phe Lys Ala Gly Ser Lys Arg Leu Phe Phe Trp Met Gln Glu  
20 25 30

Pro Lys Thr Asp Gln Asp Glu Glu His Cys Arg Lys Val Asn Glu Leu  
35 40 45

Ser Gly Thr Thr Pro Arg Cys Leu Gly His Trp Gly Pro Ala Glu Gln  
50 55 60

Arg Pro Arg Xaa Leu Cys Ala Xaa Arg Leu Arg Trp Xaa Ala Glu Xaa  
65 70 75 80

Ala Gly Glu Thr

&lt;210&gt; 1545

&lt;211&gt; 22

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1545

Tyr Leu Arg Leu Ile Tyr Ser Thr Ser Ile Thr Leu Leu Pro Ile Ser  
1 5 10 15

Asn Asn Val Lys Ile Lys  
20

&lt;210&gt; 1546

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1612

<220>  
<221> SITE  
<222> (51)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (56)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (57)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (58)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (64)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (67)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (70)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (82)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (85)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (100)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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1613

<221> SITE  
 <222> (102)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (103)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (107)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
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 <222> (108)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
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 <222> (110)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
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 <222> (111)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 1546  
 Pro Ser Ala Ala Ala Gly Asp Leu Gln Arg Thr Ala Ala Met Gly Ala  
   1                  5                  10                  15  
  
 His Leu Val Arg Arg Tyr Leu Gly Asp Ala Ser Val Xaa Pro Asp Pro  
           20                  25                  30  
  
 Leu Gln Met Pro Thr Phe Pro Pro Asp Tyr Gly Phe Pro Glu Arg Lys  
           35                  40                  45  
  
 Xaa Arg Xaa Met Val Ala Thr Xaa Xaa Xaa Met Met Asp Ala His Xaa  
   50                  55                  60  
  
 Ser Ser Xaa Cys Gly Xaa Thr Ala Pro Thr Asn Ser Ser Gly Cys Ser  
   65                  70                  75                  80  
  
 Ile Xaa Thr Leu Xaa Leu Pro Pro Leu Pro Trp Leu Ala Asn Gln Glu  
           85                  90                  95  
  
 Arg Asp Lys Xaa Glu Xaa Xaa Gln Thr Pro Xaa Xaa Phe Xaa Xaa Pro  
           100                  105                  110

1614

&lt;210&gt; 1547

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1547

Lys Val Ser Ala Val Met Ala Phe Leu Ala Ser Gly Pro Tyr Leu Thr  
 1 5 10 15

His Gln Gln Lys Val Leu Arg Leu Tyr Lys Arg Ala Leu Arg His Leu  
 20 25 30

Glu Ser Trp Cys Val Gln Arg Asp Lys Tyr Arg Tyr Phe Ala Cys Leu  
 35 40 45

Met Arg Ala Arg Phe Glu Glu His Lys Asn Glu Lys Asp Met Ala Lys  
 50 55 60

Ala Thr Gln Leu Leu Lys Glu Ala Glu Glu Glu Phe Trp Tyr Arg Gln  
 65 70 75 80

His Pro Gln Pro Tyr Ile Phe Pro Asp Ser Pro Gly Gly Thr Ser Tyr  
 85 90 95

Glu Arg Tyr Asp Cys Tyr Lys Val Pro Glu Trp Cys Leu Asp Asp Trp  
 100 105 110

His Pro Ser Glu Lys Ala Met Tyr Pro Asp Tyr Phe Ala Lys Arg Glu  
 115 120 125

Gln Trp Lys Lys Leu Arg Glu Gly Lys Leu Gly Thr Arg Gly  
 130 135 140

&lt;210&gt; 1548

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1615

<221> SITE  
<222> (9)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (12)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (22)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
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<222> (32)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (36)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
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<222> (45)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
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<222> (62)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (65)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (66)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

1616

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (84)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (92)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (97)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1548

Leu	Tyr	Tyr	Xaa	Leu	Gly	Phe	Leu	Xaa	Leu	Xaa	Xaa	Arg	Leu	Pro	Leu
1				5					10					15	

Asp	Ala	Ala	Lys	Arg	Xaa	His	Asp	Glu	Leu	Gly	Asn	Glu	Arg	Pro	Xaa
			20					25					30		

Ala	Tyr	Met	Xaa	Glu	His	Asn	Gln	Leu	Asn	Gly	Trp	Xaa	Ser	Asp	Glu
		35					40					45			

Asn	Asp	Trp	Asn	Glu	Lys	Leu	Tyr	Pro	Val	Trp	Lys	Arg	Xaa	Asp	Met
	50					55					60				

Xaa	Xaa	Glu	Lys	Leu	Leu	Glu	Gly	Arg	Pro	Val	Cys	Lys	Ala	Val	Leu
65					70					75					80

Thr	Xaa	Asp	Xaa	Pro	Thr	Leu	Gly	Gly	Leu	Lys	Xaa	Asn	Ile	Xaa	Arg
				85					90					95	

Xaa Thr

&lt;210&gt; 1549

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



1617

<220>  
 <221> SITE  
 <222> (60)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (72)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (73)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (122)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (123)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (128)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (136)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1549  
 Gly Cys Ser Leu Glu Gln Arg Ser Phe Ile Ser Val Arg Leu Leu Ser  
   1                  5                  10                  15  
 Tyr Leu Ser Ala Cys Arg His Pro Met Glu Asp Ser Met Asp Met Asp  
           20                  25                  30  
 Met Ser Pro Leu Arg Pro Gln Asn Tyr Leu Phe Gly Cys Glu Leu Lys  
       35                  40                  45  
 Ala Asp Lys Asp Tyr His Phe Lys Val Asp Asn Xaa Glu Asn Glu His  
       50                  55                  60  
 Gln Leu Ser Leu Arg Thr Val Xaa Xaa Gly Ala Gly Ala Lys Asp Glu  
   65                  70                  75                  80

1618

Leu His Ile Val Glu Ala Glu Ala Met Asn Tyr Glu Gly Ser Pro Ile  
85 90 95

Lys Val Thr Leu Ala Thr Leu Lys Met Ser Val Gln Pro Thr Val Phe  
100 105 110

Pro Leu Gly Ala Leu Asn Asn Thr Thr Xaa Xaa Leu Lys Val Glu Xaa  
115 120 125

Trp Phe Arg Ala Met Pro Ile Xaa Gly Gln  
130 135

&lt;210&gt; 1550

&lt;211&gt; 51

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1550

Thr Leu Ala Phe Phe Leu Ile Pro Cys Ile Gly Ser Pro Ala Cys Pro  
1 5 10 15

Thr Met Ser Asp Ala Ala Val Asp Thr Ser Ser Glu Ile Thr Thr Lys  
20 25 30

Asp Leu Lys Glu Lys Lys Glu Val Val Glu Glu Ala Glu Met Glu Glu  
35 40 45

Thr Pro Cys  
50

&lt;210&gt; 1551

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1619

<221> SITE  
<222> (27)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (37)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (63)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (67)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1551  
Lys Ala Xaa Ser Val Xaa Leu Tyr Lys Val Arg Leu Gln Val Pro Val  
1 5 10 15  
Arg Asn Ser Arg Val Asp Pro Arg Val Arg Xaa Gly Gly Glu Gln Val  
20 25 30  
Ser Ser Thr Ile Xaa Gly Leu Ser Gly Pro Pro Ser Arg Arg Gly Pro  
35 40 45  
Phe Pro Leu Ala Trp Val Ile Leu Phe Leu Leu Glu Ala Gln Xaa Gly  
50 55 60  
Pro Trp Xaa Leu Leu Pro Ser Ala His  
65 70

<210> 1552  
<211> 131  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (4)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (5)  
<223> Xaa equals any of the naturally occurring L-amino acids

1620

<220>  
 <221> SITE  
 <222> (96)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (104)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (114)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (115)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (119)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (124)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (129)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1552  
 Asn Ser Ala Xaa Xaa Glu Leu Leu Thr Gln Pro Gly Asp Trp Thr Leu  
   1                  5                  10                  15  
 Phe Val Pro Thr Asn Asp Ala Phe Lys Gly Met Thr Ser Glu Glu Lys  
                   20                  25                  30  
 Glu Ile Leu Ile Arg Asp Lys Asn Ala Leu Gln Asn Ile Ile Leu Tyr  
           35                  40                  45  
 His Leu His Gln Glu Phe Ser Leu Glu Lys Asp Leu Asn Leu Val Leu  
       50                  55                  60  
 Leu Thr Phe Leu Lys Thr Thr Gln Gly Ser Lys Ile Phe Leu Glu Gly  
   65                  70                  75                  80

1621

Ser Glu Met Val Thr Leu Leu Val Asn Gly Phe Gly Asn Pro Lys Xaa  
                             85                            90                            95

Ser Asp Ile His Gly Pro Pro Xaa Val Val Ile Ser Cys Cys Arg Leu  
                             100                            105                            110

Asn Xaa Xaa Phe Pro Ala Xaa Thr Pro Phe Gly Xaa Gly Ser Thr Gly  
                             115                            120                            125

Xaa Asp Thr  
                             130

<210> 1553

<211> 106

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1553

Trp Ile Xaa Arg Ala Ala Gly Ile Arg His Glu Val Ala Asp Thr Met  
       1                            5                            10                            15

Leu Pro Pro Met Ala Leu Pro Ser Val Ser Trp Met Leu Leu Ser Cys  
                             20                            25                            30

Leu Met Leu Leu Ser Gln Val Gln Gly Glu Glu Pro Gln Arg Glu Leu  
                             35                            40                            45

Pro Ser Ala Arg Ile Arg Xaa Pro Lys Gly Ser Lys Ala Tyr Gly Ser

1622

50                      55                      60  
 His Cys Tyr Ala Leu Phe Leu Ser Pro Lys Ser Trp Thr Asp Ala Asp  
 65                      70                      75                      80  
 Leu Ala Cys Gln Lys Arg Pro Ser Gly Asn Leu Val Ser Xaa Leu Ser  
                     85                      90                      95  
 Gly Ala Glu Gly Ser Phe Xaa Pro Pro Trp  
                     100                      105

&lt;210&gt; 1554

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (109)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1554

Ala Thr Phe Pro Arg Glu Trp Leu Cys Asp Arg His Leu Arg Glu Lys  
 1                      5                      10                      15

Met Phe Ser Ser Val Ala His Leu Ala Arg Ala Asn Pro Phe Asn Thr  
                     20                      25                      30

Pro His Leu Gln Leu Val His Asp Gly Leu Gly Asp Leu Arg Ser Ser  
                     35                      40                      45

Ser Pro Gly Pro Thr Gly Gln Pro Arg Arg Pro Arg Asn Leu Ala Ala  
                     50                      55                      60

Ala Ala Val Glu Glu Gln Tyr Ser Cys Asp Tyr Gly Ser Gly Arg Phe  
                     65                      70                      75                      80

Phe Ile Leu Cys Gly Leu Gly Gly Ile Ile Ser Cys Gly Thr Thr His  
                     85                      90                      95

Thr Ala Leu Val Pro Leu Asp Leu Val Lys Cys Arg Xaa Arg Phe Val  
                     100                      105                      110

Phe Ala Cys Trp Thr  
                     115

&lt;210&gt; 1555

1623

<211> 164  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (79)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (86)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (125)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1555

Glu Lys Lys Val Glu Arg Gln Thr Glu Leu Lys Arg Lys Phe Glu Gln  
 1 5 10 15

Met Lys Gln Asp Arg Ile Thr Arg Tyr Gln Gly Val Asn Leu Tyr Val  
 20 25 30

Lys Asn Leu Asp Asp Gly Ile Asp Asp Glu Arg Leu Arg Lys Glu Phe  
 35 40 45

Ser Pro Phe Gly Thr Ile Thr Ser Ala Lys Val Met Met Glu Gly Gly  
 50 55 60

Arg Ser Lys Gly Phe Gly Phe Val Cys Phe Ser Ser Pro Glu Xaa Ala  
 65 70 75 80

Thr Lys Ala Val Thr Xaa Met Asn Gly Arg Ile Val Ala Thr Lys Pro  
 85 90 95

Leu Tyr Val Ala Leu Ala Gln Arg Lys Glu Glu Arg Gln Ala His Leu  
 100 105 110

Thr Asn Gln Tyr Met Gln Arg Met Ala Ser Val Arg Xaa Val Pro Asn  
 115 120 125

Pro Val Ile Asn Pro Tyr Gln Pro Ala Pro Pro Ser Gly Tyr Phe Met  
 130 135 140

Ala Ala Ile Pro Gln Thr Gln Asn Val Leu His Thr Ile Leu Leu Ala  
 145 150 155 160

Lys Leu Leu Asn

1624

<210> 1556  
<211> 166  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (2)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (7)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (9)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (12)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (13)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (14)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE



1625

&lt;222&gt; (150)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (157)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1556

Xaa Xaa Leu Thr Leu Thr Xaa Gly Xaa Lys Xaa Xaa Xaa Xaa Thr Ala  
 1 5 10 15

Val Ala Ala Ala Leu Ala Thr Ser Gly Ser Pro Gly Pro Val Arg Asn  
 20 25 30

Ser Ala Arg Ala Gly Thr Ser Glu Phe Leu Asn Lys Val Thr Glu Ala  
 35 40 45

Gln Glu Asp Gly Gln Ser Thr Ser Glu Leu Ile Gly Gln Phe Gly Val  
 50 55 60

Gly Phe Tyr Ser Ala Phe Leu Val Ala Asp Lys Val Ile Val Thr Ser  
 65 70 75 80

Lys His Asn Asn Asp Thr Gln His Ile Trp Glu Ser Asp Ser Asn Glu  
 85 90 95

Phe Ser Val Ile Ala Asp Pro Arg Gly Asn Thr Leu Gly Arg Gly Thr  
 100 105 110

Thr Ile Thr Leu Val Leu Lys Glu Glu Ala Ser Asp Tyr Leu Glu Leu  
 115 120 125

Asp Thr Ile Lys Asn Leu Val Lys Lys Tyr Ser Gln Phe Ile Asn Phe  
 130 135 140

Pro Ile Tyr Val Trp Xaa Ser Lys Thr Glu Thr Val Xaa Glu Pro Met  
 145 150 155 160

Glu Glu Glu Gly Ala Ala  
 165

&lt;210&gt; 1557

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

<222> (1)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (19)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (20)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (21)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (38)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (82)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (83)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (90)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (95)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (97)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (103)

1627

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (113)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (120)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1557

Xaa Asn Val Val Glu Ala Gln Phe Asp Ser Arg Val Arg Ala Thr Gly  
1 5 10 15

His Ser Xaa Xaa Xaa Tyr Asn Lys Trp Glu Thr Ile Glu Ala Trp Thr  
20 25 30

Gln Gln Val Ala Thr Xaa Asn Pro Ala Leu Ile Ser Arg Ser Val Ile  
35 40 45

Gly Thr Thr Phe Glu Gly Arg Ala Ile Tyr Leu Leu Lys Val Gly Lys  
50 55 60

Ala Gly Gln Asn Lys Pro Ala Ile Phe Met Asp Cys Gly Phe Pro Met  
65 70 75 80

Pro Xaa Xaa Trp Ile Ser Pro Cys Ile Xaa Pro Val Gly Phe Xaa Lys  
85 90 95

1628

Xaa Ala Val Pro Phe Leu Xaa Thr Phe Xaa Xaa Xaa Leu Thr Asn Phe  
                   100                  105                  110

Xaa Asn Asn Leu Xaa Phe Tyr Xaa Pro Ala Leu Trp Pro Gln Tyr  
                   115                  120                  125

&lt;210&gt; 1558

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (107)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (108)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1558

Lys Ala Gly Ala Ala Ala Gly Gly Pro Gly Val Ser Gly Val Cys Val  
       1                  5                  10                  15

Cys Lys Ser Arg Tyr Pro Val Cys Gly Ser Asp Gly Thr Thr Tyr Pro  
                   20                  25                  30

Ser Gly Cys Gln Leu Arg Ala Ala Ser Gln Arg Ala Glu Ser Arg Gly  
           35                  40                  45

Glu Lys Ala Ile Thr Gln Val Ser Lys Gly Thr Cys Glu Gln Gly Pro  
       50                  55                  60

Ser Ile Val Thr Pro Pro Lys Asp Ile Trp Asn Val Thr Gly Ala Xaa  
       65                  70                  75                  80

Val Tyr Leu Ser Cys Glu Val Ile Gly Ile Pro Thr Pro Val Leu Ile  
                   85                  90                  95

1629

Trp Asn Lys Val Xaa Arg Gly His Tyr Gly Xaa Xaa Arg  
 100 105

&lt;210&gt; 1559

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1559

Gly Leu Arg Gly His Leu Arg Ser Ser Gly Ser Ser Ile Trp Asn Tyr  
 1 5 10 15

Ile Lys Phe Arg Lys His Val Ser Arg Tyr Asp Ser Arg Thr Thr Ile  
 20 25 30

Phe Ser Pro Glu Gly Arg Leu Tyr Gln Val Glu Tyr Ala Met Glu Ala  
 35 40 45

Ile Gly His Ala Gly Thr Cys Leu Gly Ile Leu Ala Asn Asp Gly Val  
 50 55 60

Leu Leu Ala Ala Glu Arg Arg Asn Ile His Lys Leu Leu Asp Glu Val  
 65 70 75 80

Phe Phe Ser Glu Lys Ile Tyr Lys Leu Asn Glu Asp Met Ala Cys Ser  
 85 90 95

Val Ala Gly Ile Thr Phe  
 100

&lt;210&gt; 1560

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (146)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1560

Ser Thr His Ala Ser Ala Ala His Pro Ser Thr Leu Thr His Pro Gln  
 1 5 10 15

Arg Arg Ile Asp Thr Leu Asn Ser Asp Gly Tyr Thr Pro Glu Pro Asp  
 20 25 30

Lys	Pro	Arg	Pro	Met	Pro	Met	Asp	Thr	Ser	Val	Tyr	Glu	Ser	Pro	Tyr
35						40						45			
Ser	Asp	Pro	Glu	Glu	Leu	Lys	Asp	Lys	Lys	Leu	Phe	Leu	Lys	Arg	Asp
50						55						60			
Asn	Leu	Leu	Ile	Ala	Asp	Ile	Glu	Leu	Gly	Cys	Gly	Asn	Phe	Gly	Ser
65						70						80			
Val	Arg	Gln	Gly	Val	Tyr	Arg	Met	Arg	Lys	Lys	Gln	Ile	Asp	Val	Ala
			85						90			95			
Ile	Lys	Val	Leu	Lys	Gln	Gly	Thr	Glu	Lys	Ala	Asp	Thr	Glu	Glu	Met
			100						105			110			
Met	Arg	Glu	Ala	Gln	Ile	Met	His	Gln	Leu	Asp	Asn	Pro	Tyr	Ile	Val
115						120						125			
Arg	Leu	Ile	Gly	Val	Cys	Gln	Ala	Glu	Ala	Leu	Met	Leu	Val	Met	Glu
130						135						140			
Met	Xaa	Gly	Ala	Gly	Ala	Ala	Gln	Val	Pro	Gly	Arg	Gln	Glu	Gly	
145			150						155						

Ser Ser Gly Ile Glu Asn Gly Ala Phe Gln Gly Met Lys Lys Leu Ser  
35 40 45

1631

Tyr Ile Arg Ile Ala Asp Thr Asn Ile Thr Ser Ile Pro Gln Gly Leu  
 50 55 60  
 Pro Pro Ser Leu Thr Glu Leu His Leu Asp Gly Asn Lys Ile Ser Arg  
 65 70 75 80  
 Val Asp Ala Ala Ser Leu Lys Gly Leu Asn Asn Leu Ala Lys Leu Gly  
 85 90 95  
 Leu Ser Phe Asn Ser Ile Ser Ala Val Asp Asn Gly Ser Leu Ala Asn  
 100 105 110  
 Thr Pro His Leu Arg Glu Leu His Leu Asp Asn Asn Lys Leu Thr Arg  
 115 120 125  
 Val Pro Gly Gly Leu Gln Ser Ile Lys Tyr Xaa Xaa Gly Gly Tyr Leu  
 130 135 140  
 His Asn Asn His Ile Ser Val Val Gly Ser Lys  
 145 150 155

&lt;210&gt; 1562

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1562

Xaa Asn Gln Asn Ser Asn Gly Leu Val Phe Leu Leu Trp Gly Ser Tyr  
 1 5 10 15  
 Ala Gln Lys Lys Gly Ser Ala Ile Asp Arg Lys Arg His His Val Leu  
 20 25 30  
 Gln Thr Ala His Pro Ser Pro Leu Ser Val Tyr Arg Gly Phe Phe Gly  
 35 40 45  
 Cys Arg His Phe Ser Lys Thr Asn Glu Leu Leu Gln Lys Ser Gly Lys  
 50 55 60  
 Lys Pro Ile Asp Trp Lys Glu Leu  
 65 70

1632

<210> 1563  
<211> 110  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (74)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (104)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1563  
Arg Thr Arg Gly Arg Leu Leu Gly His Leu Lys Glu Thr Trp Gly His  
1 5 10 15  
Pro Arg Arg Ala Ser Trp Val Val Arg Ser Arg Arg Cys Arg His Cys  
20 25 30  
Leu Cys Phe Met Arg Lys Met Leu Ala Ala Val Ser Arg Val Leu Ser  
35 40 45  
Gly Ala Ser Gln Lys Pro Ala Ser Arg Val Leu Val Ala Ser Arg Asn  
50 55 60  
Phe Ala Asn Asp Ala Thr Phe Glu Ile Xaa Lys Cys Asp Leu His Arg  
65 70 75 80  
Leu Glu Glu Ala Leu Leu Ser Gln Gln Cys Ser Pro Arg Glu Asp Gly  
85 90 95  
Leu Lys Tyr Tyr Arg Met Met Xaa Thr Val Pro Glu Trp Asn  
100 105 110

<210> 1564  
<211> 95  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (4)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>



1633

<221> SITE  
<222> (38)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (47)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (51)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (61)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (70)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (88)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (92)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (94)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1564

Leu His Ser Xaa Cys Thr Arg Arg Gly Ser Gly Ser Leu Arg Leu Cys  
1 5 10 15

Ser Val Ala Arg Val Gly Gln Arg Arg Met Thr Ser Ala Ala Met Ser  
20 25 30

Lys Pro His Ser Glu Xaa Gly Thr Ala Phe Ile Gln Thr Gln Xaa Leu  
35 40 45

His Ala Xaa Met Ala Asp Thr Phe Leu Glu His Met Xaa Arg Leu Asp  
50 55 60

1634

Ile Asp Ser Pro Pro Xaa Thr Gly Arg Asn Thr Gly Ile Ile Cys Thr  
65 70 75 80

Ile Gly Pro Ala Ser Arg Ser Xaa Gly Asp Gly Xaa Gly Xaa Asp  
85 90 95

&lt;210&gt; 1565

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1565

Pro Thr Met Ala Ala Ile Arg Lys Lys Leu Val Ile Val Gly Asp Gly  
1 5 10 15

Ala Cys Gly Lys Thr Cys Leu Leu Ile Val Phe Ser Xaa Asp Gln Phe  
20 25 30

Pro Glu Val Tyr Xaa Pro Thr Val Leu Xaa Glu Leu Tyr Cys Ala His  
35 40 45

Xaa Gly  
50

&lt;210&gt; 1566

&lt;211&gt; 161

1635

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (155)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1566

Ala Ala Met Phe Asn Ile Arg Asn Ile Gly Lys Thr Leu Val Thr Arg  
 1 5 10 15

Thr Gln Gly Thr Lys Ile Ala Ser Asp Gly Leu Lys Gly Arg Val Phe  
 20 25 30

Glu Val Ser Leu Ala Asp Leu Gln Asn Asp Glu Val Ala Phe Arg Lys  
 35 40 45

Phe Lys Leu Ile Thr Glu Asp Val Gln Gly Lys Asn Cys Leu Thr Asn  
 50 55 60

Phe His Gly Met Asp Leu Thr Arg Asp Lys Met Cys Ser Met Val Lys  
 65 70 75 80

Lys Trp Gln Thr Met Ile Glu Ala His Val Asp Val Lys Thr Thr Asp  
 85 90 95

Gly Tyr Leu Leu Arg Leu Phe Cys Val Gly Phe Thr Lys Lys Arg Asn  
 100 105 110

Asn Gln Ile Arg Lys Thr Ser Tyr Ala Gln His Gln Gln Val Arg Gln  
 115 120 125

Ile Arg Lys Lys Met Met Glu Ile Met Thr Arg Glu Val Gln Thr Asn  
 130 135 140

Asp Leu Lys Glu Val Val Asn Lys Leu Ile Xaa Asp Ala Leu Glu Lys  
 145 150 155 160

Thr

&lt;210&gt; 1567

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1567

Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro Pro Arg Cys Gly Arg

1636

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      1             5             10             15
Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Pro
      20             25             30
Gly Pro Arg Gln Ser Pro Ala Arg Leu Val Ala Met Pro Arg Lys Ile
      35             40             45
Glu Glu Ile Lys Asp Phe Leu Leu Thr Ala Arg Arg Lys Asp Ala Lys
      50             55             60
Ser Val Lys Ile Lys Lys Asn Lys Asp Asn Val Lys Phe Lys Val Arg
      65             70             75             80
Cys Ser Arg Tyr Leu Tyr Thr Leu Val Ile Thr Asp Lys Glu Lys Ala
      85             90             95
Glu Lys Leu Lys Gln Ser Leu Pro Pro Gly Leu Ala Val Lys Glu Leu
      100            105            110
Lys

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&lt;210&gt; 1568

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1568

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Gly Cys Asn Tyr Gly Lys Pro Xaa His His Gly Val Asn Gln Leu Lys
  1             5             10             15

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Phe Ala Arg Ser Leu Gln Ser Xaa Ala Glu Glu Arg Ala Gly Arg His
      20             25             30

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1637

Xaa Gly Ala Leu Arg Val Leu Asn Ser Tyr Trp Val Gly Glu Asp Ser  
                   35                                  40                                  45

&lt;210&gt; 1569

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (103)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (106)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1569

Gly Thr Ser Glu Arg Xaa Glu His Ala Met Lys Ala Ser Gly Thr Leu  
   1                                  5                                  10                                  15

Arg Glu Tyr Lys Val Val Gly Arg Cys Leu Pro Thr Pro Lys Cys His  
                   20                                  25                                  30

Thr Pro Pro Leu Tyr Arg Met Arg Ile Phe Ala Pro Asn His Val Val  
                   35                                  40                                  45

Ala Lys Ser Arg Phe Trp Tyr Phe Val Ser Gln Leu Lys Lys Met Lys  
                   50                                  55                                  60

Lys Ser Ser Gly Glu Ile Val Tyr Cys Gly Gln Val Phe Glu Lys Ser  
   65                                  70                                  75                                  80

Pro Leu Arg Val Lys Asn Phe Gly Ile Trp Leu Arg Tyr Asp Ser Arg  
                   85                                  90                                  95

Ser Gly Thr His Asn Met Xaa Arg Glu Xaa Arg Asp Leu Thr Asn Ala  
                   100                                  105                                  110

1638

Gly Ala Val Asn Gln Cys Asn Gly  
115 120

<210> 1570  
<211> 85  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (61)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (78)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1570  
Cys Pro Pro Leu Trp Gln Glu Glu Val Trp Leu Asp Pro Asn Glu Thr  
1 5 10 15  
Asn Glu Ile Ala Asn Ala Asn Ser Arg Gln Gln Ile Arg Lys Leu Ile  
20 25 30  
Lys Asp Gly Leu Ile Ile Arg Lys Pro Val Thr Val His Ser Arg Ala  
35 40 45  
Arg Cys Arg Lys Asn Thr Leu Ala Arg Arg Lys Gly Xaa His Met Gly  
50 55 60  
Ile Val Ser Gly Lys Val Gln Pro Met Pro Glu Cys Gln Xaa Arg Ser  
65 70 75 80  
His Gly Leu Arg Lys  
85

<210> 1571  
<211> 135  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (134)  
<223> Xaa equals any of the naturally occurring L-amino acids

1639

&lt;400&gt; 1571

Phe Ala Lys Met Thr Asn Thr Lys Gly Lys Arg Arg Gly Thr Arg Tyr  
 1 5 10 15

Met Phe Ser Arg Pro Phe Arg Lys His Gly Val Val Pro Leu Ala Thr  
 20 25 30

Tyr Met Arg Ile Tyr Lys Lys Gly Asp Ile Val Asp Ile Lys Gly Met  
 35 40 45

Gly Thr Val Gln Lys Gly Met Pro His Lys Cys Tyr His Gly Lys Thr  
 50 55 60

Gly Arg Val Tyr Asn Val Thr Gln His Ala Val Gly Ile Val Val Asn  
 65 70 75 80

Lys Gln Val Lys Gly Lys Ile Leu Ala Lys Arg Ile Asn Val Arg Ile  
 85 90 95

Glu His Ile Lys His Ser Lys Ser Arg Asp Ser Phe Leu Lys Arg Val  
 100 105 110

Lys Glu Asn Asp Gln Lys Lys Lys Glu Ala Lys Glu Lys Gly Thr Trp  
 115 120 125

Val Gln Leu Lys Arg Xaa Pro  
 130 135

&lt;210&gt; 1572

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1640

```

<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (23)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (69)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1572
Thr Ala Thr Pro Ala Asn Xaa Xaa Leu Pro Trp Gly Xaa Lys Lys Xaa
 1           5           10           15
Ala Arg Arg Ser Lys Ile Xaa Ser Phe Val Xaa Val Cys Xaa Tyr Asn
          20           25           30

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1641

His Leu Met Pro Xaa Arg Tyr Ser Val Xaa Tyr Ser Pro Trp Gly Lys  
                   35                                  40                                  45

Ala Val Arg Ser Leu Gly Cys Leu Pro Xaa Phe Leu Ala Leu Lys Arg  
                   50                                  55                                  60

Xaa Ala Arg Arg Xaa Pro Arg  
       65                                  70

&lt;210&gt; 1573

&lt;211&gt; 68

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1573

Ala Ala Ala Lys Gly Ala Ala Ala Met Ser Ala His Leu Gln Trp Met  
       1                                  5                                  10                                  15

Val Val Arg Asn Cys Ser Ser Phe Leu Ile Lys Arg Asn Lys Gln Thr  
                   20                                  25                                  30

Tyr Ser Thr Glu Pro Asn Asn Leu Lys Ala Arg Asn Ser Phe Arg Tyr  
                   35                                  40                                  45

Asn Gly Leu Ile His Arg Lys Thr Val Gly Xaa Glu Pro Xaa Ala Asp  
                   50                                  55                                  60

Gly Lys Xaa Val  
       65

&lt;210&gt; 1574

&lt;211&gt; 127

1642

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1574

Gly Arg Met Xaa Pro Ala Lys Lys Gly Gly Glu Lys Lys Lys Gly Arg  
1 5 10 15

Ser Ala Ile Asn Glu Val Val Thr Arg Glu Tyr Thr Ile Asn Ile His  
20 25 30

Lys Arg Ile His Gly Val Gly Phe Lys Lys Arg Ala Pro Arg Ala Leu  
35 40 45

Lys Glu Ile Arg Lys Phe Ala Met Lys Glu Met Gly Thr Pro Asp Val  
50 55 60

Arg Ile Asp Thr Arg Leu Asn Lys Ala Val Trp Ala Lys Gly Ile Arg  
65 70 75 80

Asn Val Pro Tyr Arg Ile Arg Val Arg Leu Ser Arg Lys Arg Asn Glu  
85 90 95

Asp Glu Asp Ser Pro Asn Lys Leu Tyr Thr Leu Val Thr Tyr Val Pro  
100 105 110

Val Thr Thr Phe Lys Asn Leu Gln Thr Val Asn Val Asp Glu Asn  
115 120 125

&lt;210&gt; 1575

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1643

<221> SITE  
 <222> (18)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (29)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (40)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (49)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (65)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (82)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (97)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1575

Trp Phe Pro Arg Ala Ala Gly Phe Arg His Xaa Xaa Val Gln Ile Arg  
 1 5 10 15

Ala Xaa Glu Arg Lys Gly Thr Ser Ser Phe Gly Lys Xaa Arg Asn Lys  
 20 25 30

Thr His Thr Leu Cys Arg Arg Xaa Gly Ser Lys Ala Tyr His Leu Gln  
 35 40 45

Xaa Ser Thr Cys Gly Lys Phe Gly Tyr Pro Ala Lys Arg Lys Arg Lys  
 50 55 60

Xaa Asn Trp Ser Ala Lys Ala Lys Arg Arg Asn Thr Thr Gly Thr Gly  
 65 70 75 80

Arg Xaa Arg His Leu Lys Phe Val Tyr Arg Arg Phe Arg His Gly Phe

1644

85 90 95  
 Xaa Glu Gly Thr Thr Pro Lys Pro Lys Arg Ala Ala Val Ala Ala Ser  
 100 105 110

Ser Ser Ser  
 115

&lt;210&gt; 1576

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (108)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (114)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (116)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1576

Gly Arg Arg Ser Glu Met Thr Lys Gly Thr Ser Ser Phe Gly Lys Arg  
 1 5 10 15

Arg Asn Lys Thr His Thr Leu Cys Arg Arg Cys Gly Ser Lys Ala Tyr  
 20 25 30

His Leu Gln Lys Ser Thr Cys Gly Lys Cys Gly Tyr Pro Ala Lys Arg  
 35 40 45

Lys Arg Lys Tyr Asn Trp Ser Ala Lys Ala Lys Arg Arg Asn Thr Thr  
 50 55 60

Gly Thr Gly Arg Met Arg His Leu Lys Ile Val Tyr Arg Arg Phe Arg  
 65 70 75 80

His Gly Phe Arg Glu Gly Thr Thr Pro Lys Pro Lys Arg Ala Ala Val  
 85 90 95

Ala Ala Phe Gln Phe Ile Phe Lys Asn Val Asn Xaa Phe Ser His Ala  
 100 105 110

1645

Ile Xaa Cys Xaa Gly Val Leu Lys Asn  
115 120

&lt;210&gt; 1577

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (57)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1577

Gly Ile Val Gly Lys Tyr Gly Thr Arg Tyr Gly Ala Ser Leu Arg Lys  
1 5 10 15

Met Val Lys Lys Ile Glu Ile Ser Gln His Ala Lys Tyr Thr Cys Ser  
20 25 30

Phe Cys Gly Lys Thr Lys Met Lys Arg Arg Ala Val Gly Ile Trp His  
35 40 45

Cys Gly Ser Cys Met Lys Thr Val Xaa Gly Xaa Ala Xaa  
50 55 60

&lt;210&gt; 1578

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1646

<220>  
 <221> SITE  
 <222> (44)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (51)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (63)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (67)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (74)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1578  
 Glu Leu Gly Lys Gly Lys Met Glu Lys Pro Ser Pro Tyr Pro Ala Gln  
     1                    5                    10                    15  
 Gly Pro Cys Ile Ile Tyr Asn Glu Asp Asn Gly Ile Ile Lys Ala Phe  
           20                    25                    30  
 Gln Lys His Pro Trp Asn Tyr Ser Ala Xaa Met Xaa Ser Lys Leu Lys  
           35                    40                    45  
 His Phe Xaa Ser Leu Leu Pro Gly Gly Ala Cys Gly Asp Val Xaa Gly  
     50                    55                    60  
 Ile Gly Xaa Glu Met Ala Phe Pro Gly Xaa  
     65                    70

<210> 1579  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (2)

1647

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1579

Ser	Xaa	Met	Ala	Cys	Ala	Arg	Pro	Leu	Ile	Ser	Val	Tyr	Ser	Glu	Lys
1				5					10					15	

Gly	Glu	Ser	Ser	Gly	Lys	Asn	Val	Thr	Leu	Pro	Ala	Val	Phe	Lys	Ala
			20					25					30		

Pro	Ile	Arg	Pro	Asp	Ile	Val	Asn	Phe	Val	His	Thr	Asn	Leu	Arg	Lys
		35					40					45			

Asn	Asn	Arg	Gln	Pro	Tyr	Ala	Val	Ser	Glu	Leu	Ala	Gly	His	Gln	Thr
	50					55					60				

Ser	Ala	Glu	Ser	Trp	Gly	Thr	Gly	Arg	Ala	Val	Ala	Arg	Ile	Pro	Arg
65					70					75				80	

Xaa	Arg	Gly	Gly	Gly	Thr	Xaa	Arg	Ser	Gly	Xaa	Gly	Ala	Phe	Gly	Asn
			85						90					95	

Met Cys

<210> 1580

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

1648

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1580

Leu	Ser	Leu	Xaa	Gly	Lys	Lys	Lys	Lys	Arg	Leu	Arg	Val	Asp	Lys	Trp
1				5					10					15	

Trp	Gly	Xaa	Arg	Lys	Glu	Leu	Ala	Thr	Val	Arg	Thr	Ile	Cys	Ser	His
			20					25					30		

Val	Gln	Asn	Met	Ile	Lys	Gly	Val	Thr	Leu	Gly	Phe	Arg	Tyr	Lys	Met
		35					40					45			

Arg	Xaa	Val	Tyr	Ala	His	Xaa	Pro	Ile	Asn	Val	Val	Ile	Gln	Glu	Xaa
	50					55						60			

Gly	Ser	Ile	Val	Glu	Ile	Xaa	Xaa
65					70		

&lt;210&gt; 1581

&lt;211&gt; 153

&lt;212&gt; PRT



1649

&lt;213&gt; Homo sapiens

&lt;400&gt; 1581

Ala Ile Met Gly Arg Met His Ala Pro Gly Lys Gly Leu Ser Gln Ser  
 1 5 10 15

Ala Leu Pro Tyr Arg Arg Ser Val Pro Thr Trp Leu Lys Leu Thr Ser  
 20 25 30

Asp Asp Val Lys Glu Gln Ile Tyr Lys Leu Ala Lys Lys Gly Leu Thr  
 35 40 45

Pro Ser Gln Ile Gly Val Ile Leu Arg Asp Ser His Gly Val Ala Gln  
 50 55 60

Val Arg Phe Val Thr Gly Asn Lys Ile Leu Arg Ile Leu Lys Ser Lys  
 65 70 75 80

Gly Leu Ala Pro Asp Leu Pro Glu Asp Leu Tyr His Leu Ile Lys Lys  
 85 90 95

Ala Val Ala Val Arg Lys His Leu Glu Arg Asn Arg Lys Asp Lys Asp  
 100 105 110

Ala Lys Phe Arg Leu Ile Leu Ile Glu Ser Arg Ile His Arg Leu Ala  
 115 120 125

Arg Tyr Tyr Lys Thr Lys Arg Val Leu Pro Pro Asn Trp Lys Tyr Glu  
 130 135 140

Ser Ser Thr Ala Ser Ala Leu Val Ala  
 145 150

&lt;210&gt; 1582

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1582

Gly Pro Ala Asn Met Gly Arg Val Arg Thr Lys Thr Val Lys Lys Ala  
 1 5 10 15

Ala Arg Val Ile Ile Glu Lys Tyr Tyr Thr Arg Leu Gly Asn Asp Phe  
 20 25 30

His Thr Asn Lys Arg Val Cys Glu Glu Ile Ala Ile Ile Pro Ser Lys  
 35 40 45

Lys Leu Arg Asn Lys Ile Ala Gly Tyr Val Thr His Leu Met Lys Arg

1650

50                      55                      60  
 Ile Gln Arg Gly Pro Val Arg Gly Ile Ser Ile Lys Leu Gln Glu Glu  
 65                      70                      75                      80  
 Glu Arg Glu Arg Arg Asp Asn Tyr Val Pro Glu Val Ser Ala Leu Asp  
                     85                      90                      95  
 Gln Glu Ile Ile Glu Val Asp Pro Asp Thr Lys Glu Met Leu Lys Leu  
                     100                      105                      110  
 Leu Asp Phe Gly Ser Leu Ser Asn Leu Gln Ser Leu Ser Leu Gln Leu  
                     115                      120                      125

Gly

<210> 1583  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 1583  
 Asn Asn Gly Arg Ala Lys Lys Gly Arg Gly His Val Gln Pro Ile Arg  
 1                      5                      10                      15  
 Cys Thr Asn Cys Ala Arg Cys Val Pro Lys Asp Lys Ala Ile Lys Lys  
                     20                      25                      30  
 Phe Val Ile Arg Asn Ile Val Glu Ala Ala Ala Val Arg Asp Ile Ser  
                     35                      40                      45  
 Glu Ala Ser Val Phe Asp Ala Tyr Val Leu Pro Lys Leu Tyr Val Lys  
                     50                      55                      60  
 Leu His Tyr Cys Val Thr Val Pro Ser Ile Ala Arg Leu Leu Gly Ile  
 65                      70                      75                      80  
 Asp Pro Ala Lys Pro Gly Arg Thr Glu His Pro His His Asp Ser Asp  
                     85                      90                      95  
 Leu Leu Ala Leu His Leu Arg Pro Pro Pro Lys Pro Met  
                     100                      105

<210> 1584  
 <211> 119  
 <212> PRT

1651

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1584

Val	Gln	Arg	Phe	Ile	Lys	Ile	Asp	Gly	Lys	Val	Arg	Thr	Asp	Ile	Thr
1				5					10					15	

Tyr	Pro	Ala	Gly	Phe	Met	Asp	Val	Ile	Ser	Ile	Asp	Lys	Thr	Gly	Glu
			20					25					30		

Asn	Phe	Arg	Leu	Ile	Tyr	Asp	Thr	Lys	Gly	Arg	Phe	Ala	Val	His	Arg
		35					40					45			

Ile	Thr	Pro	Glu	Glu	Ala	Lys	Tyr	Lys	Leu	Cys	Xaa	Val	Arg	Lys	Ile
	50					55					60				

Phe	Val	Gly	Thr	Lys	Gly	Ile	Pro	His	Leu	Val	Thr	His	Asp	Ala	Arg
65					70					75				80	

Thr	Ile	Arg	Tyr	Pro	Asp	Pro	Leu	Ile	Lys	Val	Asn	Asp	Pro	Phe	Ile
				85					90					95	

Leu	Ile	Xaa	Arg	Leu	Ala	Arg	Leu	Leu	Ile	Ser	Ser	Ile	Ser	Thr	Leu
			100					105						110	

Val	Thr	Cys	Val	Trp	Xaa	Leu
						115

&lt;210&gt; 1585

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1652

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1585

Gly	Arg	Tyr	Ala	Ala	Lys	Arg	Phe	Arg	Lys	Ala	Gln	Cys	Xaa	Ile	Val
1				5					10					15	

Glu	Arg	Leu	Thr	Asn	Ser	Met	Met	Met	Xaa	Gly	Arg	Asn	Asn	Gly	Lys
			20					25						30	

Lys	Leu	Met	Thr	Val	Arg	Ile	Val	Xaa	His	Ala	Phe	Glu	Ile	Ile	Arg
		35					40					45			

Leu	Leu	Thr	Gly	Xaa	Glu	Pro	Ser	Ala	Gly	Pro	Gly	Glu	Arg	His	His
	50						55				60				

Gln	His	Xaa	Ser	Pro	Gly	Arg	Xaa	His	Xaa	His	Trp	Ala	Arg	Arg	Asp
65					70				75						80

Cys

1653

&lt;210&gt; 1586

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1586

Lys Asn Cys Ile Val Leu Ile Asp Ser Thr Pro Tyr Arg Gln Trp Tyr  
 1 5 10 15

Glu Ser His Tyr Ala Leu Pro Leu Gly Arg Lys Lys Gly Ala Lys Leu  
 20 25 30

Thr Pro Glu Glu Glu Ile Leu Asn Lys Lys Arg Ser Lys Lys Ile  
 35 40 45

Gln Lys Lys Tyr Asp Glu Arg Lys Lys Asn Ala Lys Ile Ser Ser Leu  
 50 55 60

Leu Glu Glu Gln Phe Gln Gln Gly Lys Leu Leu Ala Cys Ile Ala Ser  
 65 70 75 80

Arg Pro Gly Gln Cys Gly Arg Ala Asp Gly Tyr Val Leu Glu Gly Lys  
 85 90 95

Glu Leu Glu Phe Tyr Leu Arg Lys Ile Lys Ala Arg Lys Gly Lys  
 100 105 110

&lt;210&gt; 1587

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (105)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1587

Arg Thr Met Pro Gly Val Thr Val Lys Asp Val Asn Gln Gln Glu Phe  
 1 5 10 15

1654

Val Arg Ala Leu Ala Ala Phe Leu Lys Lys Ser Gly Lys Leu Lys Val  
20 25 30

Pro Glu Trp Val Asp Thr Val Lys Leu Ala Lys His Lys Glu Leu Ala  
35 40 45

Pro Tyr Asp Glu Asn Trp Phe Tyr Thr Arg Ala Ala Ser Thr Ala Arg  
50 55 60

His Leu Tyr Leu Arg Gly Gly Ala Gly Val Gly Ser Met Thr Lys Ile  
65 70 75 80

Tyr Gly Gly Arg Gln Arg Asn Gly Val Met Pro Ser His Phe Ser Arg  
85 90 95

Gly Ser Lys Ser Val Ala Arg Arg Xaa Leu Gln Ala Leu Gly Gly Ala  
100 105 110

Glu Asn Gly Gly Xaa Gly Pro Arg Trp Arg Pro Ala Asn  
115 120 125

&lt;210&gt; 1588

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

1655

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1588

Cys Met Leu Xaa Leu Val Leu Xaa Leu Leu Ser Ser Ser Ser Ala Glu  
1 5 10 15

Glu Tyr Xaa Gly Leu Ser Ala Asn Gln Cys Ala Val Xaa Ala Lys Asp  
20 25 30

Xaa Val Xaa Cys Gly Tyr  
35

<210> 1589

<211> 55

<212> PRT

<213> Homo sapiens

<400> 1589

Gly Thr Ala Thr Gln Gly Leu Ser Pro Val His Thr Pro Gly Asp Gly  
1 5 10 15

Arg Leu His Lys Ala Val Ser Val Gly Pro Arg Val His Ile Ile Glu  
20 25 30

Glu Leu Gln Ile Phe Ser Ser Gly Gln Pro Val Ala Glu Ser Ala Pro  
35 40 45

Gly Thr Pro Thr Gly Gly Leu  
50 55

<210> 1590

<211> 92

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1590

Leu Glu Asp Gly Phe Gly Glu His Pro Phe Tyr His Cys Leu Xaa Ala

1656

1                    5                    10                    15  
Glu Val Pro Lys Glu His Trp Thr Pro Glu Gly His Ser Ile Val Gly  
                  20                    25                    30  
Phe Ala Met Tyr Tyr Phe Thr Tyr Asp Pro Trp Ile Gly Lys Leu Leu  
                  35                    40                    45  
Tyr Leu Glu Asp Phe Phe Val Met Ser Asp Tyr Arg Gly Phe Gly Ile  
                  50                    55                    60  
Gly Ser Glu Ile Leu Lys Asn Leu Ser Gln Val Ala Met Arg Cys Arg  
                  65                    70                    75                    80  
Cys Ser Ser Met His Phe Phe Gly Ser Arg Met Glu  
                  85                    90

&lt;210&gt; 1591

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE



1657

&lt;222&gt; (114)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (125)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (133)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1591

Xaa	Gly	Gly	Phe	Xaa	Ile	Thr	Xaa	Gly	Xaa	Asp	Glu	Gly	Lys	Leu	Val
1				5				10						15	

Thr	Pro	Ala	Gly	Asp	Arg	Ser	Gly	Ile	Pro	Gly	Ser	Thr	His	Ala	Ser
			20					25						30	

Gly	Arg	Asp	Val	Ser	Gln	Lys	Val	Leu	Arg	Ser	Gln	Thr	Trp	Val	Pro
		35					40						45		

Arg	Leu	Pro	Ala	Ser	Glu	Ala	Xaa	Ser	Arg	His	Arg	Gly	Lys	Val	Lys
	50						55					60			

Ser	Phe	Pro	Lys	Asp	Asp	Pro	Ser	Lys	Pro	Val	His	Leu	Thr	Ala	Phe
	65				70					75				80	

Leu	Gly	Tyr	Lys	Ala	Gly	Met	Thr	His	Ile	Val	Arg	Glu	Val	Asp	Arg
			85						90					95	

Pro	Gly	Ser	Lys	Val	Asn	Lys	Lys	Glu	Gly	Gly	Gly	Gly	Cys	Asp	His
			100					105					110		

Cys	Xaa	Asp	Thr	Xaa	His	Gly	Gly	Leu	Trp	Ala	Leu	Xaa	Ala	Thr	Leu
		115					120					125			

Glu	Asn	Pro	Arg	Xaa	Leu	Arg	Asn	Phe	Lys	Asn
	130						135			

&lt;210&gt; 1592

&lt;211&gt; 42

&lt;212&gt; PRT

1658

&lt;213&gt; Homo sapiens

&lt;400&gt; 1592

Ala Glu His Gly Asp Gln Asp Tyr Ile Trp His Cys Ile Asp Leu Phe  
1 5 10 15

Leu Asp Phe Ile Thr Val Phe Arg Lys Leu Met Met Ile Leu Ala Met  
20 25 30

Asn Glu Lys Asp Lys Lys Lys Glu Lys Lys  
35 40

&lt;210&gt; 1593

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1659

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1593

Trp Ile Pro Arg Ala Ala Gly Ser Leu Ser Leu Ala Gln Arg Arg Gly  
1 5 10 15

Xaa Thr Lys Thr Tyr Thr Val Gly Xaa Glu Glu Cys Thr Val Xaa Pro  
20 25 30

Xaa Leu Ser Ile Pro Cys Lys Leu Gln Ser Gly Thr His Cys Xaa Trp  
35 40 45

Thr Asp Gln Leu Leu Gln Gly Xaa Glu Lys Gly Xaa Gln Xaa Arg His  
50 55 60

Leu Ala Cys Leu Pro Arg Glu Pro Gly Leu Gly Thr Trp Gln Xaa Leu  
65 70 75 80

Arg Ser Gln Ile Ala  
85

&lt;210&gt; 1594

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (107)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1660

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (151)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (152)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (160)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1594

Ala	Ala	Arg	Gly	Ala	Gln	Arg	Asp	Thr	Arg	Glu	Pro	Thr	Met	Ala	Pro
1				5					10					15	

Phe	Glu	Pro	Leu	Ala	Ser	Gly	Ile	Leu	Leu	Leu	Leu	Trp	Leu	Ile	Ala
			20					25					30		

Pro	Ser	Arg	Ala	Cys	Thr	Cys	Val	Pro	Pro	His	Pro	Gln	Thr	Ala	Phe
		35					40					45			

Cys	Asn	Ser	Asp	Leu	Val	Ile	Arg	Ala	Lys	Phe	Val	Gly	Thr	Pro	Glu
	50					55					60				

Val	Asn	Gln	Thr	Thr	Leu	Tyr	Gln	Arg	Tyr	Glu	Ile	Lys	Met	Thr	Xaa
65					70					75					80

Met	Tyr	Lys	Gly	Phe	Gln	Ala	Leu	Gly	Asp	Ala	Ala	Asp	Ile	Arg	Phe
			85						90					95	

Val	Tyr	Thr	Pro	Ala	Met	Glu	Ser	Val	Cys	Xaa	Tyr	Phe	His	Arg	Ser
			100					105						110	

His	Asn	Arg	Ser	Glu	Glu	Phe	Leu	Ile	Xaa	Gly	Lys	Leu	Gln	Asp	Gly
			115				120						125		

Leu	Leu	His	Ile	Thr	Thr	Cys	Xaa	Phe	Val	Ala	Pro	Trp	Asn	Ser	Leu
			130				135					140			

1661

Ser Leu Ala Gln Arg Arg Xaa Xaa Thr Lys Thr Tyr Thr Val Gly Xaa  
 145                      150                      155                      160

Glu Glu Met His Lys Cys Phe Pro Val Tyr Pro Ser Pro Ala Asn Cys  
                     165                      170                      175

Arg Val Gly Thr His Cys Leu  
                     180

<210> 1595  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (143)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (151)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1595  
 Ser Thr Cys Pro Asp Glu Gln Cys Val Asn Ser Pro Gly Ser Tyr Gln  
   1                    5                    10                    15

Cys Val Pro Cys Thr Glu Gly Phe Arg Gly Trp Asn Gly Gln Cys Leu  
                     20                    25                    30

Asp Val Asp Glu Cys Leu Glu Pro Asn Val Cys Ala Asn Gly Asp Cys  
                     35                    40                    45

Ser Asn Leu Glu Gly Ser Tyr Met Cys Ser Cys His Lys Gly Tyr Thr  
                     50                    55                    60

Arg Thr Pro Asp His Lys His Cys Arg Asp Ile Asp Glu Cys Gln Gln  
   65                    70                    75                    80

Gly Asn Leu Cys Val Asn Gly Gln Cys Lys Asn Thr Glu Gly Ser Phe  
                     85                    90                    95

Arg Cys Thr Val Asp Arg Gly Tyr Gln Leu Ser Ala Ala Lys Asp Gln  
                     100                    105                    110

Phe Glu Asp Ile Asp Glu Cys His Thr Val Ile Ser Val Ala His Gly  
                     115                    120                    125

1662

His Ala Arg Thr Leu Lys Leu Phe Ser Met Cys Phe Leu Thr Xaa Val  
 130 135 140

Thr Glu His Leu Gly Leu Xaa Thr Leu  
 145 150

&lt;210&gt; 1596

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1596

Leu Gly Ser Ser Ala Met Ala Pro Ser Arg Lys Phe Phe Val Gly Gly  
 1 5 10 15

Asn Trp Lys Met Asn Gly Arg Lys Gln Ser Leu Gly Glu Leu Ile Gly  
 20 25 30

Thr Leu Asn Ala Ala Lys Val Pro Ala Asp Thr Glu Val Val Cys Ala  
 35 40 45

Pro Pro Thr Ala Tyr Ile Asp Phe Ala Arg Gln Lys Leu Asp Pro Lys  
 50 55 60

Ile Ala Val Ala Ala Gln Asn Cys Tyr Lys Val Thr Asn Gly Ala Phe  
 65 70 75 80

Thr Gly Glu Ile Ser Pro Gly Met Ile Lys Asp Cys Gly Pro Arg Gly  
 85 90 95

Trp Ser Trp Gly Thr Xaa Arg Glu Ala Cys Leu Trp Gly Ile Arg  
 100 105 110

&lt;210&gt; 1597

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1663

<220>  
 <221> SITE  
 <222> (71)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (79)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (80)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1597  
 Ile Phe Glu Asp Ser Asp Ser Leu Arg Leu Arg Arg Asp Val Leu Pro  
   1                  5                  10                  15  
 Ala Ala Xaa Val Gln Ala Ala Leu Pro Ala Thr Ser Cys Val Pro His  
                   20                  25                  30  
 Ala Lys Val Pro Lys Ser His Val His Pro Arg Ser Ala Leu Ser Leu  
                   35                  40                  45  
 Thr Cys Leu Leu Leu Val His Leu Ser Ile Ala His Leu His Leu Ala  
                   50                  55                  60  
 Ser Ile Asn Ala Leu Leu Xaa Gln Pro Tyr His Pro Gly Ser Xaa Xaa  
   65                  70                  75                  80  
 Ser Pro

<210> 1598  
 <211> 52  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (1)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (3)  
 <223> Xaa equals any of the naturally occurring L-amino acids

1664

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1598

Xaa	Lys	Xaa	Gly	Arg	Asn	Lys	Ala	Arg	Pro	Leu	Thr	Ser	Leu	Arg	Xaa
1					5				10					15	

Thr	Phe	Xaa	Ala	Thr	Phe	Cys	Pro	Val	Xaa	Gly	Thr	Tyr	Ile	Leu	Asn
		20						25						30	

Asp	Cys	Pro	Xaa	Thr	His	Ser	Gly	Ile	Phe	Phe	Phe	Leu	Lys	Xaa	Xaa
		35						40					45		

Xaa	Lys	Ala	Phe
			50



1665

&lt;210&gt; 1599

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1599

Ala Phe Asn Xaa Ser Tyr Arg Lys Xaa Val Xaa Ala Val Arg Xaa Glu  
1 5 10 15

Phe Arg Val Thr Gln Arg Pro Gly Leu Xaa Xaa Leu Gly Leu Glu Phe  
20 25 30

&lt;210&gt; 1600

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1666

<220>  
 <221> SITE  
 <222> (12)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (13)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (15)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1600  
 Ala Arg Gly Phe Phe Phe Phe Phe Phe Phe Xaa Xaa Phe Xaa Phe  
           1                  5                  10                  15

Phe Lys Lys

<210> 1601  
 <211> 22  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (2)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (20)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (22)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1601  
 Arg Xaa Asn Arg Val Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe  
           1                  5                  10                  15

Phe Phe Phe Xaa Pro Xaa  
                   20

1667

&lt;210&gt; 1602

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (98)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1602

Asp Phe Gly Arg Ser Phe Leu Leu Trp Phe Ser Leu Phe Phe Leu Pro  
1 5 10 15

Phe Tyr Ser Ala Arg Ile Ser Gly Gly Leu Met Val Gly Tyr Asn Val  
20 25 30

Ser Val Leu Leu Gln Ile Gly Leu Lys Gly Tyr Pro Ala Glu Ser Pro  
35 40 45

Ala Phe Leu Ser Ser Ile Tyr Phe Ser Gly Lys Leu Phe Phe Leu Phe  
50 55 60

Phe Phe Lys Val Asn Leu Cys Ile Glu Leu Asn Cys Ile Ser Val Phe  
65 70 75 80

Pro Ala Tyr Val Tyr Ile Ile Pro Met Ile Pro Asn Ser Tyr Leu Tyr  
85 90 95

Phe Xaa Thr Asn Ser Gln Ser Glu  
100

&lt;210&gt; 1603

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1668

<220>  
 <221> SITE  
 <222> (62)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (63)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (73)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (80)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (81)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1603  
 Phe Leu Met Leu Ser Phe Met Gly Ile Val Thr Phe Leu Phe Ser Lys  
     1                    5                    10                    15  
 Ser His Cys Trp Asn His Gln Gly Cys Gly Met Ser Leu Xaa Val Leu  
                     20                    25                    30  
 Phe Met Gln Val Thr Val Thr Phe Ala Ile Met Ala Xaa Phe Glu Thr  
                     35                    40                    45  
 Leu Ile Met Cys Phe Tyr Phe Phe Ile Pro Val Lys Met Xaa Xaa Lys  
                     50                    55                    60  
 Arg Lys Lys Val Val Ile Ala Pro Xaa Ile Ser Gly Ser Lys Leu Xaa  
     65                    70                    75                    80  
 Xaa Lys Phe Pro Lys Lys  
                     85

<210> 1604  
 <211> 34  
 <212> PRT  
 <213> Homo sapiens

1669

&lt;400&gt; 1604

Ser Asp Glu Ile Ile Tyr Asn Phe Ile Val Thr Ser Ser Val Phe Pro  
1 5 10 15

Phe Glu Arg Cys Met Asn Ser Leu His Phe Tyr Ser Asn Val Leu Ser  
20 25 30

Val Asp

&lt;210&gt; 1605

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1605

Leu Leu Val Trp Ser Glu Tyr Asn Thr Ser Ile Ile Thr Tyr Asn Ser  
1 5 10 15

1670

Xaa Pro Gly Thr Gly Gly Tyr Lys Tyr Asn Phe Phe Lys Xaa Asn Ser  
20 25 30

Trp Leu Ser Thr Xaa Leu Gln Val Pro Leu Xaa Gly Xaa Leu Trp Xaa  
35 40 45

Ile Thr Leu Gly Lys  
50

<210> 1606

<211> 32

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

1671

&lt;400&gt; 1606

Asp Ala Trp Ala Asp Ala Trp Gly Lys Val Ser Ser Ser Leu Xaa Ser  
1 5 10 15  
Xaa Ile Cys Xaa Leu Xaa Xaa Arg Lys Val Arg Xaa Gly Gln Xaa Met  
20 25 30

&lt;210&gt; 1607

&lt;211&gt; 31

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1607

Leu Ile Met Asp Thr Ile Leu Asn Lys Xaa Ile Gln Val Lys Pro Val  
1 5 10 15  
Lys Glu Lys Glu Ile Lys Val Ser Gly Ser Cys Xaa Ser Xaa Val  
20 25 30

&lt;210&gt; 1608

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (34)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (38)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (55)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (74)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (76)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (77)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (79)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (87)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (97)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (101)  
<223> Xaa equals any of the naturally occurring L-amino acids



1673

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (103)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (107)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1608

Asp Pro Gln Gly Ile Arg His Pro His Ile Val Gln Leu Lys Asp Phe

1 5 10 15

Gln Cys Glu Leu Gly Ala Gly Xaa Leu Pro Lys Gly Val Glu Lys Asp

20 25 30

Ile Xaa Phe Arg Pro Xaa Leu Cys Leu Leu Lys Gln Gln Leu Gly Thr

35 40 45

Val Glu Pro Ile Asn Leu Xaa Phe Asn Pro Leu Gly Ser Phe Phe Ala

50 55 60

Gly Gln Gly Gly Gly Arg Lys Pro Trp Xaa Phe Xaa Xaa Phe Xaa Ser

65 70 75 80

Gln Leu Asn Pro Gly Gln Xaa Asn Phe Leu Gly Pro Leu Lys Glu Lys

85 90 95

Xaa Phe Gly Pro Xaa Xaa Xaa Xaa Leu Ser Xaa

100 105

&lt;210&gt; 1609

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1674

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1609

Arg Gln Thr Ser Thr Ala Lys Leu Gln Lys Gly Gly Phe Cys Ser Arg  
1 5 10 15

Arg Lys Glu Asp Val Tyr Leu Gln Gly Ala Lys Gln Gly Glu Leu Gly  
20 25 30

Ser Ser Cys Leu Arg Pro Asn Leu His Asp Asp Leu Gln Ala Arg Val  
35 40 45

Phe Lys Xaa Ser Gly Lys Phe Pro Gly Lys Pro Glu Val Lys Gly Gln  
50 55 60

Asn Cys Lys Ser Val Glu Ile Gly  
65 70

&lt;210&gt; 1610

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1610

Leu Tyr Arg Gly Ser Val Gln Gly Arg Val Glu Leu Leu Ser Glu Gly  
1 5 10 15

Ser Leu Gly Gly Pro Leu Arg Pro Gly Pro Asp Pro Val Leu Gln Gly  
20 25 30

Leu Ser Gln Gly Gln Val His Gly Glu Thr Met Gly Cys Leu Ser Asp  
35 40 45

Thr Asp Leu Ala Leu Leu Ser Pro Pro Ile Arg Leu Ser Phe Leu Cys  
50 55 60

Ser Glu Cys Leu Gln Gly Leu Asp Pro Gly Lys Glu Phe  
65 70 75

&lt;210&gt; 1611

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1675

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (66)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1611

Glu Asn Leu Pro Ser Gln Xaa Ala Pro Ala Gly Leu Pro Lys Xaa Xaa

1

5

10

15

1676

Gln Pro Cys Leu Tyr Phe Tyr Gly Xaa Asn Gly His Lys Ile Ile Ile  
20 25 30  
Asn Leu Thr Lys Thr Xaa Leu Phe Ser Xaa Phe Leu Glu Leu Ser Trp  
35 40 45  
Ser Phe Leu Ile Leu Xaa Phe Gly Asn Xaa Arg Leu Phe Leu Lys Cys  
50 55 60  
Phe Xaa Asp Val Lys Ile Xaa Tyr  
65 70

&lt;210&gt; 1612

&lt;211&gt; 63

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1677

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1612

Arg	Glu	Ser	Glu	Met	Leu	Cys	Asn	Leu	Leu	Xaa	Gln	Leu	Lys	His	Xaa
1				5				10					15		

Met	Leu	Arg	Gly	Arg	Asn	Tyr	Lys	Xaa	Cys	Ser	Asn	Leu	Phe	Trp	Val
			20				25						30		

Ile	Xaa	Met	Tyr	Leu	Trp	Val	Gln	Ala	Leu	Phe	Gly	Gly	Phe	Xaa	Phe
		35					40					45			

Gln	Arg	Asn	Xaa	Xaa	Lys	Val	Xaa	Leu	Leu	Ile	Lys	Lys	Arg	Lys
		50				55					60			

&lt;210&gt; 1613

&lt;211&gt; 22

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1613

Lys	Ser	Xaa	Ser	Xaa	Thr	Ala	Gly	Asp	Arg	Xaa	Xaa	Thr	Ser	Gly	Ser
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1678

1	5	10	15
Pro	Gly	Leu	Gln
	Glu	Phe	
	20		

&lt;210&gt; 1614

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (46)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1679

<220>  
 <221> SITE  
 <222> (75)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (78)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (83)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (85)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1614  
 Asp Gly Gly Phe Xaa Xaa Phe Phe Phe Phe Phe Phe Phe Xaa Xaa Phe  
     1                    5                    10                    15  
 Phe Phe Tyr Xaa Trp Val Ile Ser Thr Cys Phe Ile Pro Ala Ile Lys  
                     20                    25                    30  
 Ile Ile Lys Asn Ile Ser Asn Tyr Tyr Thr His Thr Lys Xaa Val Gln  
                     35                    40                    45  
 Ser Leu Xaa Leu Pro Pro Thr Pro Arg Gly Lys Asn Cys Phe Xaa Leu  
                     50                    55                    60  
 Trp Glu Val Val Ser Glu Thr Arg Gly Gln Xaa Thr Gln Xaa Arg Leu  
     65                    70                    75                    80  
 Gly Gly Xaa Arg Xaa  
                     85

<210> 1615  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 1615  
 Tyr Ala Val Pro Cys Ser Gly Ile Gln Gly Arg Phe Ser Pro Leu Ser  
     1                    5                    10                    15

1680

Phe Leu Leu Ala Gly Asp Ser Cys Thr Cys Ala Gly Ser Cys Lys Cys  
                   20                  25                  30  
 Lys Glu Cys Lys Cys Thr Ser Cys Lys Lys Ser Lys Trp Asp Pro Leu  
                   35                  40                  45  
 Phe Pro Leu Pro Leu Pro Val Leu Gln Pro Val Pro Ser Ser Pro Ser  
                   50                  55                  60  
 Ser Gly Glu Leu Lys Gln Val Trp Gly Cys Pro Ile Ala Pro Gly Asn  
                   65                  70                  75                  80  
 Trp Trp Pro Pro Gln  
                                   85

&lt;210&gt; 1616

&lt;211&gt; 29

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1616

Ala Glu Gly Asn Ile Arg Xaa Ala Lys Lys Lys Lys Lys Lys Lys  
   1                  5                  10                  15



1681

Lys Lys Lys Lys Lys Lys Lys Lys Xaa Xaa Lys Xaa Xaa  
                   20                  25

&lt;210&gt; 1617

&lt;211&gt; 37

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1617

Gly Pro Ala Xaa Trp Arg Glu Thr Pro Pro Xaa Leu Tyr Lys Glu Phe  
   1                  5                  10                  15

Pro Gly Val Xaa Gly Ser Phe Ser Leu Xaa Ser Glu Trp Gly Ala Gln  
                   20                  25                  30

Ile Trp Ala Xaa Cys  
                   35

&lt;210&gt; 1618

&lt;211&gt; 22

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1682

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1618

Gly	Xaa	Gly	Phe	Xaa	Pro	Ser	Pro	Ser	Cys	Phe	Pro	Gln	Cys	Leu	Lys
1				5					10					15	

Xaa	Leu	Asp	Gly	Leu	Xaa
				20	

&lt;210&gt; 1619

&lt;211&gt; 52

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1619

Gln	Ser	Ile	Ser	Leu	Asn	Arg	Asp	Gly	Val	Glu	Glu	Leu	Lys	Val	Gly
1				5					10					15	

Ile	Cys	Ser	Leu	Met	Thr	Thr	Met	Phe	Thr	Ile	Cys	Cys	Gly	Leu	Val
			20					25					30		

Gly	Ala	Leu	Arg	Gln	Glu	Asn	His	Val	Glu	Pro	Thr	Gly	Ser	Arg	Pro
		35					40						45		

Ala	Trp	Glu	Thr
			50

&lt;210&gt; 1620

1683

<211> 52  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (28)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (35)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1620  
Pro Thr Glu Gln Val Thr Leu Gly Ile Thr Ala Gln Ser Tyr Ser Arg  
1 5 10 15  
Val His Ile Asn Asn Arg Val Tyr Asp Leu Asp Xaa Gly Ser Gly His  
20 25 30  
Pro Asp Xaa Ala Ala Ala Ile Lys Gly Ser Phe Val Gln Arg Leu Lys  
35 40 45  
Ser Tyr Val Ile  
50

<210> 1621  
<211> 113  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (87)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (108)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (112)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1621  
Leu Phe Pro Ala Pro Ala Pro Pro Pro Ala Pro Ala Phe Ala Pro Pro

1684

```

      1             5             10             15
Pro Lys Val Pro Ser Pro Glu Arg Ser Ala Pro Arg Val Pro Leu Pro
      20             25             30
Ser Pro Gln Pro Ser Tyr Pro Phe Arg Pro Ala Ala Ser Gly Gly Thr
      35             40             45
Pro Pro Pro Ala Cys Leu Pro Pro Ala Gln Pro Cys Gln Val Pro Pro
      50             55             60
Ala Met Asn Leu Phe Arg Phe Leu Gly Lys Leu Ser Gln Leu Leu Ala
      65             70             75             80
Ile Ile Leu Leu Leu Leu Xaa Ile Trp Asn Ser Arg Ser Cys Ala Glu
      85             90             95
Ile Gln Glu Lys Asn Ser Pro Val Trp Cys Gly Xaa Phe Asn Gly Xaa
      100            105            110
Ile

```

&lt;210&gt; 1622

&lt;211&gt; 21

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1622

```

Val Phe Lys Thr Met Xaa Gln Val Ser Asn Asp Glu Ile Lys His Leu
  1             5             10             15

```

```

Phe Val Leu Tyr Gln
      20

```

&lt;210&gt; 1623

&lt;211&gt; 40

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

1685

<222> (7)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (10)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (23)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (29)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (33)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (39)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (40)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1623  
Leu Arg Thr Ser Cys Phe Xaa Leu Asn Xaa Met Ile His Phe Ile Lys  
1 5 10 15  
Val Pro Val Ile Lys Tyr Xaa Val Lys Tyr Leu Leu Xaa Trp Thr Ile  
20 25 30  
Xaa Cys Lys Leu Pro Phe Xaa Xaa  
35 40

<210> 1624  
<211> 95  
<212> PRT  
<213> Homo sapiens

<220>

1686

<221> SITE  
<222> (4)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (24)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (39)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (40)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (78)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (79)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (82)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (87)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (95)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1624  
Ile His Pro Xaa Leu Ala Ser Gln Val Ala Gly His Tyr Arg Arg Glu  
1 5 10 15  
His Ser Arg Pro Arg Leu Lys Xaa Ala Tyr Ser Lys Lys Gln Phe Gln  
20 25 30

1687

Phe Leu Ser Lys Leu Cys Xaa Xaa Arg Gly Ser Thr Asp Phe Leu Gly  
           35                          40                          45  
 Pro Val Asn Leu Asn Gln Ser Leu Arg Phe Cys Gln Glu Ser Ser Leu  
           50                          55                          60  
 Leu Ser Lys Trp Val Phe Pro Asn Gly His Asn Gly Lys Xaa Xaa Arg  
           65                          70                          75                          80  
 Gly Xaa Asn Ile Lys Lys Xaa Lys Lys Asn Leu Gly Gly Gly Xaa  
                           85                          90                          95

&lt;210&gt; 1625

&lt;211&gt; 40

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1625

Ala Arg Ala Thr Met Ala Leu Trp Thr Xaa Val Ser Phe Ala Glu Xaa  
       1                          5                          10                          15

Leu Glu Arg Gly Ser Asp Glu Lys Val Xaa Leu Lys Arg Leu Ala Arg  
           20                          25                          30

Leu Leu Gly Leu Ile Thr Ala Pro  
           35                          40

&lt;210&gt; 1626

&lt;211&gt; 26

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

1688

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1626

Ala Arg Ala Gly Ile Val Pro Xaa His Ser Ser Leu Gly Asp Arg Ala

1

5

10

15

Arg Leu His Leu Lys Lys Lys Lys Xaa

20

25

&lt;210&gt; 1627

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (89)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (119)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (121)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE



1689

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (155)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1627

Glu	Leu	Gln	Ala	Ser	Glu	Asn	Gln	Pro	Cys	Ser	Arg	His	Ala	Arg	Pro
1				5				10						15	

Arg	Leu	Pro	Ser	Ser	Leu	Phe	Pro	Leu	Pro	Ala	Gln	Pro	Ser	Leu	Pro
			20					25						30	

Ser	Ser	Ala	Gly	Lys	Ala	Gly	Thr	His	Ser	Gly	Cys	Leu	Pro	Pro	Gly
		35					40					45			

Gly	Lys	Glu	Arg	Glu	Gly	Gly	Trp	Val	Gly	Xaa	Gly	Leu	Pro	Pro	Gly
	50					55					60				

Asn	Val	Thr	Leu	Pro	Gly	Pro	Arg	Ile	Ala	Pro	Gly	Pro	Lys	Pro	Lys
65					70					75				80	

Ala	Gln	Pro	Gly	Thr	Lys	Leu	Arg	Xaa	Ser	Ala	Gly	Arg	Ser	Tyr	Phe
					85				90					95	

Tyr	Leu	Pro	Pro	Pro	Leu	Leu	Val	Pro	Pro	Pro	Gly	Arg	Leu	Ala	Ala
			100					105					110		

Glu	Ser	Asp	Thr	Gly	Xaa	Xaa	Lys	Xaa	Xaa	Xaa	Glu	Pro	Trp	Tyr	Pro
		115					120						125		

Ile	Leu	Gly	Pro	Gly	Pro	Xaa	Leu	Gly	Pro	Asn	Pro	Ser	Ser	Val	Asp
	130					135					140				

Asn	Gly	Val	Trp	Asn	Lys	Cys	Cys	Leu	Ser	Xaa	Gln	Gln	Lys	Lys	Lys
145					150					155				160	

Lys	Arg	Gly	Gly	Arg	Phe	Arg	Gly	Phe	Lys	Ala
			165						170	

1690

&lt;210&gt; 1628

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (93)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (110)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (111)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1628

Arg	Pro	Ala	Arg	Ser	Pro	Ala	Glu	Val	Gly	Ser	Arg	Gly	Leu	Ser	Ser
1				5					10					15	

Pro	Pro	Arg	Ala	His	His	Arg	Pro	Val	Ser	Pro	Ala	Ala	Pro	Gly	Arg
			20					25						30	

Trp	Ser	Thr	Ser	Ala	Arg	Val	Arg	Thr	Arg	Lys	Met	Val	Asn	Tyr	Ala
		35					40					45			

Trp	Ala	Gly	Arg	Xaa	Arg	Arg	Lys	Leu	Trp	Trp	Arg	Ser	Val	Ala	Val
	50					55					60				

Leu	Thr	Cys	Lys	Ser	Val	Val	Arg	Pro	Gly	Tyr	Arg	Gly	Glu	Arg	Leu
65					70					75					80

Asn	Arg	Thr	Ile	Leu	Val	Ser	Trp	Phe	Pro	Ser	Glu	Xaa	Phe	Pro	Gln
				85					90						95

1691

Asp Lys Leu Gly Ala Leu Ala Arg Pro Arg Arg Asn Pro Xaa Xaa Gly  
 100 105 110

Ile Phe Ile Arg Xaa Lys Arg Ile  
 115 120

&lt;210&gt; 1629

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1629

Asn Leu Val Pro Gly Ser Ser Ala Thr Tyr Ile Ser Leu Ser Ser Cys  
 1 5 10 15

Cys Phe Val Lys Arg Lys Arg Lys Lys Lys Pro Lys Leu Val Arg Val  
 20 25 30

Ile Ser Asn Tyr Leu Ile Phe Cys Arg Ser Val Ile Lys Asn Leu Val  
 35 40 45

Ile Pro Ser Thr Ser Tyr Cys Glu Glu Gln Thr Leu Gly Pro Thr Leu  
 50 55 60

Lys Ser Pro Leu Val Thr His Ser His Pro Pro Gly Ser Cys Leu Pro  
 65 70 75 80

Gly Arg Gly Cys Arg Lys  
 85

&lt;210&gt; 1630

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1630

Leu Lys Lys Lys Phe Pro Glu Glu Glu Lys Lys Thr Thr Lys Asn Lys  
 1 5 10 15

Thr Leu Lys Val Asp Ile Leu Cys Gly Xaa Thr Phe Glu Leu Asn Ser  
 20 25 30

1692

Glu Phe Phe  
35

<210> 1631  
<211> 40  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (12)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (23)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (29)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (31)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1631  
His Glu Gln Pro Thr Ala Ala Cys Ile Cys Ile Xaa Arg Gln Val Pro  
1 5 10 15

Pro Val Pro Ala Ala Arg Xaa Pro Gln Ser Arg Thr Xaa Ser Xaa Gln  
20 25 30

Ala Lys Leu Ala Leu Thr Met Pro  
35 40

<210> 1632  
<211> 97  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

1694

&lt;400&gt; 1632

Xaa Ser Gly Ser Pro Gly Pro Ala Gly Pro Arg Gly Pro Val Gly Pro  
 1 5 10 15

Xaa Gly Pro Pro Gly Lys Asp Gly Thr Xaa Gly His Pro Gly Ala Ile  
 20 25 30

Gly Pro Pro Gly Pro Arg Gly Asn Xaa Gly Glu Xaa Gly Ser Xaa Gly  
 35 40 45

Ser Pro Gly Pro Xaa Arg Ala Thr Arg Ala Leu Leu Xaa Pro Pro Gly  
 50 55 60

Ala Pro Gly Pro Cys Cys Gly Gly Val Xaa Ala Ala Ala Ile Ala Gly  
 65 70 75 80

Ile Gly Arg Leu Lys Lys Leu Gly Arg Phe Xaa Pro Arg Val Xaa Trp  
 85 90 95

Gly

&lt;210&gt; 1633

&lt;211&gt; 43

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1695

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1633

Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 1 5 10 15

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Gly Arg Pro Phe Xaa Arg  
 20 25 30

Ile Gln Xaa Tyr Val Xaa Xaa Xaa Ala Thr Ser  
 35 40

&lt;210&gt; 1634

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1634

Ala Arg Ala Ala Leu Ser Ala Thr Lys Thr Cys Arg Pro Ala Phe Arg  
 1 5 10 15

Gly Ala Ser Ala Ala Pro Arg Gly Gly Gly Pro Ala Arg Ser Pro Gly  
 20 25 30

Arg Val Leu Gly Arg His Ala Ala Gly Ser Leu Ala Arg Leu Val Gly  
 35 40 45

Arg Ser Arg Gly Phe Trp Leu Leu Gly Gly Glu Val Lys Ser Phe Cys  
 50 55 60

Arg Cys Trp Gly Arg Arg Thr Arg Arg Glu Arg Lys Lys Lys Lys Lys  
 65 70 75 80

Lys Xaa Leu Gly Lys Tyr Phe Xaa  
 85

1696

&lt;210&gt; 1635

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1635

Tyr	Ser	His	Ser	Gly	Phe	Cys	Ser	Pro	Thr	Asp	Glu	Asp	Arg	Cys	Thr
1				5					10					15	

Asn	Glu	Ala	Asp	Gly	Asn	His	Pro	Val	Glu	Val	His	Leu	Arg	Ser	Asp
			20					25					30		

Pro	Asp	Asp	Ala	Arg	Ala	Met	Thr	Gly	Pro	Ala	Gly	Val	Ala	Pro	Arg
		35					40					45			

Gly	Asp	Gln	Pro	Trp	Ser	Ser	His	Arg	Arg	Lys	Pro	Leu	Arg	Ser	Gly
	50					55					60				

Lys	Arg	Arg	Arg	Lys	Xaa	Lys	Trp	Gln	Lys	Gln	Lys	Glu	Pro	Gln	Ser
65					70					75					80

Ser	Ile	Gly	Asp	His	Ser	Met	His	Phe	Leu	Pro	Ala	Ala	Thr	Gln	Thr
				85					90					95	

Leu	Pro	Glu	Leu	Leu	Xaa	Asn	Leu	Met
			100					105

&lt;210&gt; 1636

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;



1697

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (46)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1636

Gln	Arg	Pro	Arg	Xaa	Xaa	Gly	Thr	Gly	Ser	Gly	Pro	Pro	Gly	Pro	Gly
1				5				10					15		

Lys	Ala	Ser	His	Gly	Gly	Gly	Ala	Pro	Val	Ser	Arg	Ser	Gly	Thr	Gly
			20				25						30		

Ser	Glu	Asp	Gly	Arg	Glu	Ser	Arg	Ala	Thr	Val	Val	Val	Xaa	Cys
		35					40					45		

&lt;210&gt; 1637

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1698

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1637

Gly	Asp	Pro	Pro	Glu	Gly	Pro	Ala	Thr	Ser	Pro	Leu	Thr	Asn	Ser	Xaa
1				5				10					15		

His	Pro	Xaa	Ser	Xaa	Gly	Thr	Ala	Ala	Ala	Thr	Gln	Arg	Arg	Xaa	Ser
			20				25						30		

Glu	Gln	Gly	Gly	Arg	Xaa	Thr	Cys	Gly	Pro	Ala	Gly	Ala	Gly	Ser	Pro
	35						40					45			

Xaa	Xaa	Pro	Pro	Arg	Ala	Xaa
	50				55	

&lt;210&gt; 1638

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

<221> SITE  
<222> (14)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (18)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (19)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (20)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (29)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (30)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (34)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (35)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (38)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (39)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

1700

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1638

Ile	Arg	Xaa	His	Ala	Thr	Xaa	Tyr	Arg	Gly	Xaa	Phe	Cys	Xaa	Arg	Arg
1				5					10					15	

Thr	Xaa	Xaa	Xaa	Leu	His	Ser	Ala	Asn	Val	Thr	Thr	Xaa	Xaa	Leu	Leu
			20					25						30	

Leu	Xaa	Xaa	Phe	Tyr	Xaa	Xaa	Arg	Xaa	Xaa	Ala	Xaa	Val	Asn	Ile	Ser
			35				40						45		

Xaa	Val	Pro	His	Cys	Pro	Ile
	50					55

&lt;210&gt; 1639

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1639

Ile	Cys	Pro	Gln	Asn	Pro	Leu	Asn	Pro	Leu	Val	Asn	Leu	Thr	Xaa	Ser
1				5					10					15	

1701

Pro Lys Arg Asn Ser Ser Leu Asp Thr Arg Lys Lys Pro Cys Arg Glu  
                   20                  25                  30

Ser Lys Lys Phe Asn Thr His Ser Arg Pro Lys Ser Ser His Gln Leu  
           35                  40                  45

Arg Lys Arg Ser Ser Xaa Thr Pro Thr Thr  
       50                  55

&lt;210&gt; 1640

&lt;211&gt; 37

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (32)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1640

Met Cys Val Asp Cys Met Asn Asp Leu Glu Lys Lys Lys Lys Lys Lys  
   1                  5                  10                  15

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Xaa Pro Xaa  
           20                  25                  30

Gly Xaa Pro Xaa Pro  
       35

&lt;210&gt; 1641

&lt;211&gt; 41

1702

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1641

Tyr Val Trp Leu Gly His Phe Val Ala Lys Val Arg Thr Cys Leu Trp  
1 5 10 15

Lys Thr Ser Leu Trp Leu Gly Glu Ser Val Trp Pro Ala Ala Ser Asp  
20 25 30

Leu Cys Arg Val Leu Thr Cys Gln Gly  
35 40

&lt;210&gt; 1642

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1703

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1642

Xaa	Pro	Ala	Ala	Ser	Tyr	Leu	Met	Thr	Leu	Met	Glu	Pro	Leu	Ser	Leu
1				5					10					15	

Ile	Xaa	Xaa	Xaa	Leu	Ser	Pro	Pro	Leu	Xaa	Xaa	Ser	Lys	Glu	Asn	His
			20					25					30		

Phe	Asp	Ala	Arg	Ser	Cys	Leu	Xaa	Ser	Xaa	Pro	Lys	Cys	Ser	Cys	Ser
		35					40					45			

Xaa	Pro	Xaa	Pro	Gly	Ile	Ser	Leu	Pro	Arg	Asp	Lys	Ser	Ala	Ser	Glu
	50					55					60				

Ile	Leu	His	Asp	Ser	Leu	Cys	Phe	Gln	Asn	Pro	Gly	Leu	Phe	Cys	Ile
65					70					75					80

Ser	Ser	Phe	Leu	Gly	Pro	Ala	Ser	Cys	Val	Pro	Leu	Lys	Gly	Xaa	Trp
				85						90					95

Ala Lys Thr

&lt;210&gt; 1643

&lt;211&gt; 42

&lt;212&gt; PRT

1704

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1643

Lys	Xaa	Pro	Xaa	Asn	Leu	Gly	Lys	Ala	Arg	Leu	Gln	Val	Pro	Val	Arg
1				5				10					15		

Asn	Ser	Arg	Val	Asp	Leu	Arg	Val	Phe	Ile	Tyr	Ile	Asp	Ile	Tyr	Ile
			20					25					30		

Asp	Ile	Tyr	Arg	Tyr	Ile	Tyr	Arg	Tyr	Ile
		35					40		

&lt;210&gt; 1644

&lt;211&gt; 46

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE



1705

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1644

Arg Val Gly Val Arg Leu Ala Gln Val Pro Xaa His Leu Thr Ser Arg

1

5

10

15

Ser His His Pro His Pro Val Phe His Xaa Arg Leu Lys Ala Thr Met

20

25

30

Arg Met Xaa His Thr Glu Ala Xaa Met Xaa Xaa Asn His Leu

35

40

45

&lt;210&gt; 1645

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1645

His Val Arg Leu Lys Pro Ile Phe Ser Pro Phe Phe Leu Leu Phe Ser

1

5

10

15

Leu Ala Ala His Ile Val Pro Leu Phe Tyr Glu Pro Gln Phe Ser Gly

20

25

30

Leu Ser Leu Lys Lys Lys Ser Ser Leu Asn Ile Ala Phe Arg Lys Leu

35

40

45

Leu Phe Leu Asp Lys Lys Ser Tyr Thr Leu Lys Lys Lys Lys Thr Phe

50

55

60

Ser Arg Lys Ile Tyr

65

&lt;210&gt; 1646

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

1706

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1646

Ile	Ile	Cys	Phe	Val	Leu	Ser	Phe	Ile	Tyr	His	Phe	Phe	Leu	Tyr	Lys
1				5					10					15	

Ser	Ile	Ile	Ser	Arg	Phe	Leu	Tyr	Tyr	Met	Ile	Asp	Ile	Asn	Trp	Val
			20					25						30	

Ile	Ser	Ser	Arg	Gln	Phe	Val	Phe	Ser	Xaa	Xaa	Pro	Pro	Ser	Thr	Val
			35				40						45		

Ser	Gln	Arg	Pro	Asp	Xaa	Val	Gly	Lys	Val	Phe	Phe	Leu	Arg	Ile	Val
			50			55							60		

Lys	Gly	Ser	Xaa	Gln	Leu	Gly	Leu	Ile	Lys	Ala	Xaa	Xaa	Pro
65					70							75	

<210> 1647

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1647

1707

Ile Cys Pro Gln Asn Pro Leu Asn Pro Leu Val Asn Leu Thr Val Ser  
 1 5 10 15  
 Pro Lys Arg Asn Ser Ser Leu Asp Thr Arg Lys Lys Pro Cys Arg Glu  
 20 25 30  
 Ser Lys Lys Phe Asn Thr His Ser Arg Pro Lys Ser Ser His Gln Leu  
 35 40 45  
 Arg Lys Arg Ser Ser Ser Thr Pro Thr Thr  
 50 55

<210> 1648  
 <211> 59  
 <212> PRT  
 <213> Homo sapiens

<400> 1648  
 Cys Leu Phe Leu Leu Pro Val Met Leu Leu Gln Ile His Ile Ser Arg  
 1 5 10 15  
 Ser Thr Val Asn Val Ser Thr Ser Arg Gly Thr Pro Pro Ser Thr Leu  
 20 25 30  
 Ser Val Lys Gly Gln Asn Glu Thr Val Arg Val Lys Gly Thr Gly Arg  
 35 40 45  
 Lys Phe Ala Cys Leu Gln Val Thr Arg Ile Arg  
 50 55

<210> 1649  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (11)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (29)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE

1708

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (66)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (86)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (94)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1649

Val	Pro	Pro	Pro	Val	Pro	Trp	Gly	Gly	Pro	Xaa	Arg	Glu	Gly	Glu	Val
1				5					10					15	

Ser	His	Thr	Lys	Ala	Asp	Ala	Pro	Leu	Val	Gly	Gly	Xaa	Trp	Pro	Gly
			20					25					30		

Lys	Ile	Glu	Gly	Cys	Ala	Gly	Leu	Pro	Leu	Arg	Ala	Ala	Gln	Thr	Ala
		35					40					45			

Leu	Met	Cys	Gly	Gly	Xaa	Ala	Arg	Trp	Val	Arg	Ala	Gln	Glu	Val	Ala
	50					55					60				

Pro	Xaa	Thr	Val	Ala	Asp	Xaa	Leu	Pro	Arg	Val	Pro	Gly	Ser	Ser	Leu
65					70				75						80

Tyr	Pro	Trp	Tyr	Ala	Xaa	Asn	Xaa	Trp	Phe	Pro	His	Pro	Xaa	Ala	Ala
				85				90						95	

Lys	Ser	Leu	Phe	Pro	Trp	Ile	Ser	Gln	Ala	Lys	Leu	Gly	Leu
		100					105					110	

1709

&lt;210&gt; 1650

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1650

Ser Pro Glu Gly Leu Ser Leu Leu Ala Pro Xaa Pro Gly Arg Ala Pro  
1 5 10 15

Ala Gly Pro Thr Pro Leu Arg Gly Gln Cys Gln Xaa Gly Ser Leu Thr  
20 25 30

Gly Ala Val His Leu Ser Asn Gly Asn Ala Gly Val Leu Arg Arg Ala  
35 40 45

Gln Gly Gly Gln Lys Pro Pro Val Glu Gln Lys Gly Lys Ser Ser Leu  
50 55 60

Asp Leu His Phe Gln Tyr Glu Tyr Arg Pro  
65 70

&lt;210&gt; 1651

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

1710

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1651

Asn	Lys	Gly	Gly	Gly	Arg	Met	Met	Thr	Tyr	Pro	Glu	Val	Leu	Pro	Leu
1				5					10					15	

Thr	Ala	Arg	Thr	Gly	Ala	Cys	Ser	Val	Pro	Trp	Glu	His	Xaa	Ala	Gln
			20					25						30	

Leu	Ser	Gly	Val	Gln	Ala	Val	Gly	Ser	Phe	Pro	Asn	Xaa	Ser	Ile	Ser
		35					40						45		

Xaa	Pro	Xaa	Xaa	Leu	Lys	Pro	Val	Gly	Gln	Ile	Ser	Lys	Xaa	Leu	Xaa
		50				55						60			

Xaa	Arg	Xaa	Pro	Phe	Thr	Asn	Pro	Arg	Phe	Cys	Gly	Gln	Cys	Pro	Lys
	65					70					75				80

Gly Val Gly

1711

<210> 1652  
<211> 90  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (41)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (43)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (54)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (55)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (56)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (76)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (89)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1652  
Phe Phe Phe Phe Leu Asp Val Lys Gly Ile Xaa Phe Gln Arg Leu Leu  
1 5 10 15

1712

Glu Ser Leu Val Tyr Thr Asp Glu Gly Val Arg Cys Cys Phe Pro Ser  
                   20                  25                  30  
 Glu Ser Ser Ala Ser Thr Glu Ile Xaa Leu Xaa Leu Ile Phe Asp Ile  
                   35                  40                  45  
 Leu His Cys Leu Leu Xaa Xaa Xaa Arg Ser Phe Leu Pro Phe Thr Ser  
                   50                  55                  60  
 Pro Ser Asn Tyr Val Gln Met Cys Arg Leu Leu Xaa Ser Gly Leu Ser  
                   65                  70                  75                  80  
 Pro Lys Ala Leu Thr Leu Gly Leu Xaa Phe  
                                   85                                  90

&lt;210&gt; 1653

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1653

Lys Leu Trp Phe Val Phe Val Phe Cys Leu Phe His Leu Phe Pro Ser  
           1                  5                  10                  15



1713

Gln Pro Gln Thr Phe Cys Ser Leu Arg Glu Leu Thr Phe Pro Phe Phe  
                  20                  25                  30  
Phe Leu Phe Phe Phe Phe Gly Xaa Leu Xaa Val Xaa Asn Lys Ile Xaa  
          35                  40                  45  
Xaa Ala Ile Lys Lys Lys Lys  
          50                  55

&lt;210&gt; 1654

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1714

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1654

Val Xaa Ala Thr Asn Leu Pro Ser Leu Val Ile Ala Xaa Cys Ser Xaa

1

5

10

15

Ile Glu Ser Leu Val Pro Leu Leu Ile Trp Pro Gln Lys Pro Pro Asn

20

25

30

Ser Pro Trp Leu Ile Leu Thr Val Xaa Pro Lys Lys Gly Thr Xaa Ser

35

40

45

Leu Gly Pro Leu Xaa Lys Lys Thr Leu Xaa Lys Xaa Asn

50

55

60

&lt;210&gt; 1655

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1655

Ala Ala Val Leu Gln Thr Ala Arg Arg Ala Arg Ser Ala Cys Arg Leu

1

5

10

15

Xaa Xaa Xaa Xaa

1715

20

<210> 1656  
<211> 24  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (12)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (13)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (17)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (19)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1656  
Ala Asp Ile Gln Thr Glu Arg Ala Tyr Gln Lys Xaa Xaa Thr Ile Phe  
1 5 10 15

Xaa Asn Xaa Lys Arg Val Leu Leu  
20

<210> 1657  
<211> 34  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (10)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (31)

1716

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1657

Ala Ala Ala Cys Leu Pro Ala Thr Glu Xaa Ser Gln His His Glu Gly  
1 5 10 15

Leu Asp Leu Leu Ser Pro Leu Pro Gly Arg Glu Gly Leu Gly Xaa Pro  
20 25 30

Ser Xaa

<210> 1658

<211> 51

<212> PRT

<213> Homo sapiens

<400> 1658

Cys Lys Gln Tyr Leu Thr Asn Pro Gln Val Leu Asn Tyr Gln Thr Cys  
1 5 10 15

Ile Lys Asn Phe Gly Trp Gly Asp Leu Gly Ala Glu Pro Asn Leu Arg  
20 25 30

Ala Val His Ala Lys Thr Ser Pro Val Lys Ala Asn Tyr Tyr Thr Gln  
35 40 45

Leu Ile Gln  
50

<210> 1659

<211> 166

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1717

<222> (53)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (62)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (72)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (80)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (84)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (87)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (88)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (95)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (98)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
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<222> (115)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (117)

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (125)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (133)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (149)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (160)

<223> Xaa equals any of the naturally occurring L-amino acids

1719

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (162)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1659

Ser Thr His Ala Ser Gly His Ser His Ser Gln Ala Ser Leu Ala Gly

1 5 10 15

Ser Arg Val Ala Arg Val Arg Cys Leu Leu Gln Leu Gln Asp Asp Arg

20 25 30

Pro Glu Asp Ala Leu Leu Leu Phe Leu Pro Gln Pro Arg Gln Glu Ala

35 40 45

Thr Xaa Pro Gln Xaa Pro Ser Arg Pro Ser Arg Gly Pro Xaa Trp Leu

50 55 60

Gly Leu Leu Lys Lys Ala Glu Xaa Gly Gly His Pro Ser Gln Glu Xaa

65 70 75 80

Pro Gly Trp Xaa Gly Glu Xaa Xaa Glu Arg Arg Pro Pro Trp Xaa Leu

85 90 95

Asn Xaa Arg Thr Phe Trp Asn Arg Ile Pro Glu Glu Gln Arg Ala Arg

100 105 110

Gly Pro Xaa Leu Xaa Xaa Arg Gly Pro Xaa Xaa Val Xaa Pro Trp Gly

115 120 125

Phe Leu Glu Xaa Xaa Pro Gly Lys Glu Ser Xaa Leu Arg Gly Gly Xaa

130 135 140

Phe Arg Gly Lys Xaa Leu Phe Leu Ile Lys Ala Lys Leu Gly Ile Xaa

145 150 155 160

Phe Xaa Lys Arg Lys Gly

165

&lt;210&gt; 1660

&lt;211&gt; 68

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1720

<220>  
<221> SITE  
<222> (12)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (20)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (21)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (24)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (25)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (29)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (39)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (45)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (51)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (52)  
<223> Xaa equals any of the naturally occurring L-amino acids



1721

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (66)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1660

Ser Pro Gly Leu Gln Glu Phe Gly Xaa Arg Gly Xaa Arg Asn Arg Leu  
1 5 10 15

Asn Tyr Ala Xaa Xaa His His Xaa Xaa Pro His Arg Xaa Ser Ile Pro  
20 25 30

Thr His Ala Leu His Ser Xaa Arg Gly Asp Asp Ala Xaa Leu Thr Ile  
35 40 45

Lys Ile Xaa Xaa Pro Pro Met Val Leu Glu Pro Thr Ser Thr Pro Asp  
50 55 60

His Xaa Val Asp  
65

&lt;210&gt; 1661

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1661

Leu Asn Ala Asp Thr Leu Met Asn Asp Gln Gln Gln Leu Ser Ala Leu  
1 5 10 15

Lys Lys Thr Leu Ile Phe Glu Phe Thr Cys Trp Val Pro Gly Ser Asn  
20 25 30

Gly Gly Lys Arg Pro Leu Phe Ile Lys Arg Gly Pro Pro Phe Xaa Xaa

1722

35 40 45  
 Pro Lys Asp Phe Leu Xaa Phe Gln Ile Gly Lys Gly Thr  
 50 55 60

&lt;210&gt; 1662

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1662

Thr Val Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Asn Leu  
 1 5 10 15

Glu Val Xaa Gly Ile Xaa Asn Leu Asp Ile Xaa Phe Gly Thr Ser Asn  
 20 25 30

Pro His Ser Pro Thr His Ala Gly Gly Cys Ala Cys Arg Thr Xaa Leu  
 35 40 45

Thr Asp Trp Trp Ile Leu  
 50

1723

&lt;210&gt; 1663

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1663

Ala Arg Glu Lys Leu Cys Val Arg Gly Arg Gly Leu Phe Arg Cys Arg  
1 5 10 15

Val Ser Ser Ser Cys Thr Leu Phe Lys Ser Leu His Trp Arg Asn Ser  
20 25 30

Ala Ile Thr Ser Ser Leu Val Ala Glu Gly Arg Gly Asn Ile His Leu  
35 40 45

Phe Met Pro Val Cys Cys Met Gln Ala Phe Trp Leu Pro Thr Leu Gln  
50 55 60

Gln Asn Asn Cys Thr Asn Ser Leu Val Pro Ile Pro Pro Thr Glu Ser  
65 70 75 80

Pro Gly Ala Thr Val Phe Phe Ala Leu His Cys Lys Glu Arg Asp  
85 90 95

&lt;210&gt; 1664

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (85)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (90)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (91)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

1724

&lt;400&gt; 1664

Val Asn Gln Glu Thr Thr Pro Val Asp Cys Gly Ala Leu Glu Gly Leu  
 1 5 10 15

Val Gly Val Asn Leu Pro Thr Pro Tyr Asn Cys Gly Arg Ile Gln Lys  
 20 25 30

Ser Leu Ser Phe Tyr Ile His Ser Leu Asp Val Ile Gly Pro Leu Pro  
 35 40 45

Pro Ile Ser Leu Arg Cys His Ala Ser Met Gly Ser Gly Val Val Arg  
 50 55 60

Lys Asn Lys Arg Arg Xaa Asp Ser Leu Val Met Asp Lys Ile Leu Thr  
 65 70 75 80

Thr Val Phe Pro Xaa Gly Ile Pro Tyr Xaa Xaa Phe Asn Phe Phe Phe  
 85 90 95

Ser Leu Lys Asn  
 100

&lt;210&gt; 1665

&lt;211&gt; 33

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1725

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1665

Ser	Ala	Pro	Gly	Gly	Ser	Cys	Tyr	Ser	Gly	Xaa	Pro	Arg	Val	Pro	Lys
1				5					10					15	

Cys	Xaa	Ile	Gln	Xaa	Asp	Pro	Xaa	Ser	Xaa	Pro	Pro	Cys	Leu	Gln	Leu
			20					25					30		

Val

&lt;210&gt; 1666

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1666

Gly	Arg	Val	Gly	Gly	Arg	Val	Gly	Gly	Arg	Val	Gly	Arg	Glu	Pro	Gln
1				5				10						15	

Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu	Xaa	Met	Thr	Lys	Lys	Gln	Ser
			20					25					30		

Ala	Glu	Leu	Pro	Xaa	Ser	Xaa	Gly	Phe	Tyr	Pro	Thr	Lys	Ser	Pro
			35					40					45	

&lt;210&gt; 1667

&lt;211&gt; 34

&lt;212&gt; PRT

1726

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1667

Leu	Glu	Ile	Thr	Leu	Gln	Gly	Glu	Pro	Lys	Leu	Arg	Pro	Pro	Lys	Pro
1				5				10						15	

Glu	Arg	Ala	Thr	Leu	Glu	Gln	Leu	Lys	Glu	His	Thr	Pro	Leu	Phe	Leu
			20					25					30		

Pro Xaa

&lt;210&gt; 1668

&lt;211&gt; 41

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1668

Ile Cys Pro Gln Asn Pro Leu Asn Pro Leu Val Asn Leu Thr Val Xaa

1727

1                    5                    10                    15  
 Pro Lys Arg Asn Lys Leu Phe Gly His Xaa Glu Lys Thr Leu Tyr Arg  
                   20                    25                    30

Glu Glu Xaa Xaa Phe Xaa Asn Pro Tyr  
                   35                    40

&lt;210&gt; 1669

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (77)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (84)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1669

Gly Arg Ala Leu Pro Gly Arg Val Arg Ala Ala Thr Gly Glu Gly Arg  
   1                    5                    10                    15

Thr Phe Val Xaa Asn Gly Thr Val Leu Leu Ala Pro Pro Arg Gly Gly  
                   20                    25                    30

Pro Leu Val Ser Pro Leu Pro Ala Arg Arg Arg Cys Val Trp Glu Gly  
                   35                    40                    45

Val Gly Cys Gly Pro Arg Pro Asp Leu Ala Val Pro Pro Ala Ala Phe  
                   50                    55                    60

Cys Val Ala Gly Ala Gly Arg Arg Gly Pro Leu Thr Xaa Gln Thr Ala  
                   65                    70                    75                    80

1728

Leu Ala Val Xaa Ser Ser Gly Xaa Arg Leu Ala Gly Gly Thr Pro Thr  
                     85                    90                    95

&lt;210&gt; 1670

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (112)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (128)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1670

Gly Ser Thr His Ala Ser Gly Ser Thr Glu Lys Glu Gly Leu Leu His  
   1                    5                    10                    15

Glu Ala Thr Leu Ser Val His Gln Gly Leu Gly Leu Arg Gly Pro Trp  
                     20                    25                    30

Ser Ser Cys Ser Ser Pro Ala Pro Pro Trp Met His Cys Cys Arg Ala  
                     35                    40                    45

Glu Xaa Pro Leu Pro Gly Pro Ala Leu Gly Phe Leu Glu Thr Ser Phe  
   50                    55                    60

Ser Phe Ala Ile Phe Phe Lys Trp Glu Lys Gly Gly Gln Leu Ser Leu  
   65                    70                    75                    80

Gly Lys Arg Gly Pro Ala Thr Cys Pro Ala Trp Ala Pro Glu Pro Ser  
                     85                    90                    95



1729

Ser Leu Thr Gly Gln Ser Leu Val Gly Lys Ala Ala Ser Trp Pro Xaa  
                   100                  105                  110

Ser Leu Leu Met Phe Leu Val Ser Arg Val Gln Ser Gln Leu Phe Xaa  
                   115                  120                  125

Phe Leu Val Val Pro Val Xaa Glu Ala Phe Gln Asn  
                   130                  135                  140

&lt;210&gt; 1671

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1671

His Xaa Xaa Met Glu Ser Asp Lys Met Val Thr Gly Ser Trp Gly Pro  
   1                  5                  10                  15

Arg Leu Ser Xaa His Glu Gly Cys Ser Ala Xaa Cys Ile Ser Val Tyr  
                   20                  25                  30

Val Val

&lt;210&gt; 1672

&lt;211&gt; 113

1730

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1672

Arg	Xaa	Leu	Leu	Thr	Ile	Xaa	Glu	Ser	Trp	Tyr	Xaa	Cys	Arg	Tyr	Arg
1				5					10					15	

Ser	Gly	Ile	Pro	Gly	Gly	Ile	Pro	Leu	Ser	Pro	Arg	Asp	Pro	Thr	Leu
			20					25						30	

Ala	Ser	Trp	Pro	Thr	Arg	Ser	Arg	Glu	Ser	Leu	Arg	Glu	Arg	Arg	Arg
			35					40						45	

Ser	Arg	Ala	Ala	Ser	Gly	Leu	Gly	Ile	Arg	Pro	Leu	Gly	Pro	Pro	Leu
		50				55					60				

Val	Ser	Arg	Val	Gly	Arg	Asn	Arg	Arg	Leu	Ala	His	Leu	Ala	Trp	Val
	65					70				75				80	

Cys	Pro	His	Val	Val	Ile	Val	Gln	Ile	Asn	Ala	His	Ser	Glu	Leu	Ala
				85					90					95	

Val	Tyr	Phe	Leu	Lys	Phe	Asn	Ile	Val	Phe	Val	Ile	Leu	Lys	Tyr	Leu
			100					105						110	

Leu

&lt;210&gt; 1673

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1731

&lt;221&gt; SITE

&lt;222&gt; (85)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1673

Pro Ala Phe Asn Phe Asp Pro Leu Phe Phe Leu Phe Val Arg Cys Thr  
 1 5 10 15

Arg Leu Pro Ser Cys Phe Ser Leu Leu Ser Cys His Gln Pro Phe Leu  
 20 25 30

Leu Gly Gly His Val Leu Gly Lys Arg Pro His Asp Leu Ser Gly Ser  
 35 40 45

Thr Gln Cys Leu Arg His Pro Ala Ser Phe Ala Cys Ile Pro Gln Thr  
 50 55 60

Ile Ser Leu Ile Leu Phe Thr Ala Ala Asn Leu Ser Leu Val Asp Glu  
 65 70 75 80

Thr Val Phe Ile Xaa Leu  
 85

&lt;210&gt; 1674

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1674

Ser Asp Tyr Glu Leu Leu Phe Lys Arg Lys Met Leu Phe Ile His Ala  
 1 5 10 15

Glu Val Ile Gln Phe Pro Pro Ser Tyr Arg Ser Ile Leu Ile His Pro  
 20 25 30

Thr Leu Glu Met Gln His Leu Cys Gly Arg Leu Phe His Lys Pro Pro  
 35 40 45

Arg Leu Leu Arg Leu Gly Arg Tyr  
 50 55

&lt;210&gt; 1675

&lt;211&gt; 65

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

1732

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1675

Leu	Val	Cys	Ile	Leu	Pro	Lys	Val	Arg	Xaa	Pro	Thr	Leu	Gly	Ile	Thr
1				5					10					15	

Leu	Leu	Ile	Val	Ile	Leu	Val	Xaa	Ile	Leu	Pro	Gly	Val	Met	Tyr	Ser
			20					25						30	

Leu	Lys	Ala	Leu	Asn	Val	Cys	Ile	Ala	Thr	Xaa	His	Gln	Ile	Leu	Asn
			35					40						45	

Gly	Leu	Ser	Phe	Gly	Trp	Asn	Tyr	Lys	Leu	Lys	Lys	Cys	Phe	Ser	Gly
			50				55							60	

Lys

65

&lt;210&gt; 1676

&lt;211&gt; 52

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1676

Pro	Thr	Glu	Gln	Val	Thr	Leu	Gly	Ile	Thr	Ala	Gln	Ser	Tyr	Ser	Arg
1				5					10					15	

Val	His	Ile	Asn	Asn	Arg	Val	Tyr	Asp	Leu	Asp	Val	Gly	Ser	Gly	His
			20					25						30	

Pro	Asp	Gly	Ala	Ala	Ala	Ile	Lys	Gly	Ser	Phe	Xaa	Gln	Arg	Leu	Lys
			35					40						45	

1733

Ser Tyr Val Ile  
50

<210> 1677  
<211> 40  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (2)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (14)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (26)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (34)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (37)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (39)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1677  
Xaa Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Xaa Lys Lys  
1 5 10 15

Lys Lys Lys Lys Lys Lys Gly Gly Arg Xaa Lys Gly Ser Lys Leu Thr

1734

20 25 30  
 Tyr Xaa Cys Met Xaa Arg Xaa Ser  
 35 40  
  
 <210> 1678  
 <211> 49  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 1678  
 Thr Ala Ala Met Ser Ile Phe Thr Pro Thr Asn Gln Ile Arg Leu Thr  
 1 5 10 15  
 Asn Val Ala Val Val Arg Met Lys Arg Ala Arg Lys Arg Phe Glu Ile  
 20 25 30  
 Ala Cys Tyr Arg Asn Lys Ser Ser Ala Gly Gly Gly Leu Trp Lys Lys  
 35 40 45  
 Thr

<210> 1679  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 1679  
 Ala Ala Ala Gln Gln Val Val Asp Gln Ala Thr Glu Ala Gly Gln Lys  
 1 5 10 15  
 Ala Met Asp Gln Leu Ala Lys Thr Thr Gln Glu Thr Ile Asp Lys Thr  
 20 25 30  
 Ala Asn Gln Ala Ser Asp Thr Phe Ser Gly Ile Gly Lys Lys Phe Gly  
 35 40 45  
 Leu Leu Lys  
 50

<210> 1680  
 <211> 41  
 <212> PRT  
 <213> Homo sapiens

1735

&lt;400&gt; 1680

Ala Phe Asn Arg Ser Gln Arg Gly Ser Cys Ser Ala Thr Tyr Glu Thr  
1 5 10 15

Pro Thr Gln Lys Gln Val Val Tyr Glu Trp Phe Ser Ala Arg Phe Pro  
20 25 30

Thr Asn Val Arg Cys Val Thr Gly Glu  
35 40

&lt;210&gt; 1681

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1681

Gly Xaa Gly Val Arg Val Asn Val Arg Thr Ser Ala Gly Cys Ser Pro  
1 5 10 15

His Pro Asn Pro Leu Pro Lys Gly Arg Arg Gly Pro Val Thr Gln Phe  
20 25 30

Ala Leu

&lt;210&gt; 1682

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

1736

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (78)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (85)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1682

Ala	Ser	Asn	Ser	Asn	Tyr	Ala	Leu	Ile	Gly	Ala	Leu	Arg	Ala	Val	Ala
1				5					10					15	

Gln	Thr	Ile	Ser	Tyr	Glu	Val	Thr	Leu	Ala	Ile	Ile	Pro	Thr	Ile	Asn
			20					25						30	

Ile	Thr	Asn	Xaa	Leu	Ala	Pro	Leu	Thr	Ser	Pro	Pro	Leu	Ser	Gln	His
		35					40					45			

Lys	Asn	Thr	Pro	Glu	Tyr	Pro	Ala	Ile	Ile	Thr	Leu	Trp	Pro	Tyr	Xaa
		50					55				60				

Ile	Ile	Phe	His	Thr	Arg	Xaa	Asn	Asn	Glu	Pro	Pro	Ser	Xaa	Leu	Xaa
65						70				75					80

Lys	Gly	Asn	Phe	Xaa
				85

&lt;210&gt; 1683

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1683

Val	Gly	Leu	Glu	Ile	Asn	Met	Leu	Ala	Phe	Ile	Pro	Val	Leu	Thr	Lys
1					5					10				15	

Lys	Ile	Asn	Pro	Arg	Ser	Thr	Glu	Ala	Ala	Ile	Lys	Tyr	Phe	Leu	Thr
			20					25						30	



1737

Gln Ala Thr Ala Ser Ile Ile Leu Leu Ile Ala Ile Leu Phe Asn Asn  
35 40 45

Ile Leu Ser Gly Gln  
50

<210> 1684

<211> 169

<212> PRT

<213> Homo sapiens

**<220>**

**<221> SITE**

**<222> (146)**

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

**<222> (152)**

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

**<222> (154)**

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

<222> (156)

<223> Xaa equals any of the naturally occurring L-amino acids

**<220>**

**<221> SITE**

**<222> (161)**

<223> Xaa equals any of the naturally occurring L-amino acids

**<400> 1684**

Pro Val Ser Ala Lys Lys Glu Lys Lys Val Ser Cys Met Phe Ile Pro  
1 5 10 15

Asp Gly Arg Val Ser Val Ser Ala Arg Ile Asp Arg Lys Gly Phe Cys  
20 25 30

Glu Gly Asp Glu Ile Ser Ile His Ala Asp Phe Glu Asn Thr Cys Ser  
35 40 45

Arg Ile Val Val Pro Lys Ala Ala Ile Val Ala Arg His Thr Tyr Leu  
50 55 60

1738

Ala Asn Gly Gln Thr Lys Val Leu Thr Gln Lys Leu Ser Ser Val Arg  
 65 70 75 80  
 Gly Asn His Ile Ile Ser Gly Thr Cys Ala Ser Trp Arg Gly Lys Ser  
 85 90 95  
 Leu Arg Val Gln Lys Ile Arg Pro Ser Ile Leu Gly Cys Asn Ile Leu  
 100 105 110  
 Arg Val Glu Tyr Ser Leu Leu Ile Tyr Val Ser Val Pro Gly Ser Lys  
 115 120 125  
 Lys Val Ile Leu Asp Leu Pro Leu Val Ile Gly Ser Arg Ser Gly Leu  
 130 135 140  
 Ser Xaa Arg Thr Ser Ser Trp Xaa Ala Xaa Thr Xaa Ser Glu Asp Glu  
 145 150 155 160  
 Xaa Gly Arg Ser Glu His Pro Asp Thr  
 165

<210> 1685  
 <211> 733  
 <212> DNA  
 <213> Homo sapiens

<400> 1685  
 gggatccgga gcccaaattct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg 60  
 aattcgaggg tgcaccgtca gtcttctctt tcccccaaaa acccaaggac accctcatga 120  
 tctcccgac tctgaggtc acatgcgtgg tggtagacgt aagccacgaa gaccctgagg 180  
 tcaagttaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 240  
 aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact 300  
 ggctgaatgg caaggagtac aagtgcagg tctccaacaa agccctccca accccatcg 360  
 agaaaacat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc 420  
 catcccgga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct 480  
 atccaagcga catcgccgtg gagggggaga gcaatgggca gccggagaac aactacaaga 540  
 ccacgcctcc cgtgctggac tccgacggt ccttcttct ctacagcaag ctcaccgtgg 600  
 acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc 660  
 acaaccacta cagcagaag agcctctccc tgctccggg taaatgagtg cgacggccgc 720  
 gactctagag gat 733

<210> 1686  
 <211> 5  
 <212> PRT  
 <213> Homo sapiens

1739

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 1686

Trp Ser Xaa Trp Ser

1 5

&lt;210&gt; 1687

&lt;211&gt; 86

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1687

gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc 60  
cccgaaatat ctgccatctc aattag 86

&lt;210&gt; 1688

&lt;211&gt; 27

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1688

gcggcaagct ttttgcaaag cctaggc 27

&lt;210&gt; 1689

&lt;211&gt; 271

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1689

ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg 60  
aaatatctgc catctcaatt agtcagcaac catagtcccc cccctaactc cgcccatccc 120  
gcccctaact ccgcccagtt ccgcccattc tccgcccatt ggctgactaa ttttttttat 180  
ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt 240  
ttttggaggc ctaggctttt gcaaaaagct t 271

&lt;210&gt; 1690

&lt;211&gt; 32

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1690

gcgctcgagg gatgacagcg atagaacccc gg 32

1740

&lt;210&gt; 1691

&lt;211&gt; 31

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1691

gcgaagcttc gcgactcccc ggatccgcct c

31

&lt;210&gt; 1692

&lt;211&gt; 12

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1692

ggggactttc cc

12

&lt;210&gt; 1693

&lt;211&gt; 73

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1693

gcggcctcga ggggactttc ccggggactt tccggggact ttccgggact ttccatcctg 60  
ccatctcaat tag 73

&lt;210&gt; 1694

&lt;211&gt; 256

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1694

ctcgagggga ctttcccggg gactttccgg ggactttccg ggactttcca tctgccatct 60  
caattagtcg gcaaccatag tcccggccct aactccgccc atcccggccc taactccgcc 120  
cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga 180  
ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg 240  
cttttgcaaa aagctt 256

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12P 19/34  
US CL : 435/91.1

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 435/91.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
MEDLINE, SCISEARCH, GenEmbl Database

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Database GenEmbl on STN. KELKER, W. 'Sequence of human E-cadherin cDNA', GenEmbl Database, Accession Z18923.1, Version Z18923.1 GI:31074, 04 December, 1992 (04.12.1992), see nucleotide position 456-1007.	1-12, 14-16, and 21 for SEQ ID NO:1
Y	BANERJI, J. A gene pair from the human major histocompatibility complex encodes large proline-rich proteins with multiple repeated motifs and a single ubiquitin-like domain, Proc. Natl. Acad. Sci. USA, 1990, Vol 87, pages 2374-2378, see entire document.	1-12, 14-16, and 21 for SEQ ID NO:2
Y	Database GenEmbl on STN. SKUCE, C. 'Homo sapiens chromosome 20 clone RP4-661I20 map q11.23-12', GenEmbl Database, Accession AL031669, Version AL031669.18 GI:6983365, 11 FEBRUARY, 2000 (04.02.2000), see nucleotide position 63147-63482.	1-12, 14-16, and 21 for SEQ ID NO:3
Y	Database GenEmbl on STN. RAKER, V.A. 'Human SnRNP core protein Sm D2 mRNA, complete cds', GenEmbl Database, Accession U15008, Version U15008.1 GI:600747, 10 December, 1994 (10.12.1994), see nucleotide position 23-479	1-12, 14-16, and 21 for SEQ ID NO:4
Y	Database GenEmbl on STN. ELLER et al. 'Cellular retinoic acid-binding protein [human, skin, mRNA, 735 nt]', GenEmbl Database, Accession S74445, Version S74445.1, GI:241541, 7 May, 1993 (07.05.1993), see nucleotide position 7-733.	1-12, 14-16 and 21 for SEQ ID NO:6



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 03 May 2000 (03.05.2000)	Date of mailing of the international search report 26 JUL 2000
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703)305-3230	Authorized officer Michael Woodward Telephone No. (703) 308-0196

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

## C (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Database GenEmbl on STN. SHARMA et al 'Human class III alcohol dehydrogenase (ADH5) chi subunit mRNA, complete cds.', GenEmbl Database, Accession M30471, Version M30471.1 GI:178133, 5 October, 1995 (05.10.1997), see nucleotide position 2-2277.	1-12, 14-16, and 21 for SEQ ID NO:8
Y	Database GenEmbl on STN. ABEDINIA, M. 'Human transketolase (TKT) mRNA, complete cds.', GenEmbl, Accession U55017 M86521, Version U55017.1 GI:1297296, 6 May, 1996 (06.05.1996), see nucleotide position 687-2038.	1-12, 14-16, and 21 for SEQ ID NO:10

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:  
Please See Continuation Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-12, 14-16, and 21 for the first 10 sequences in Table 1

Remark on Protest

☐  
☐

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

**BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING** This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1.

Group 1, claims 1-12, 14-16, and 21 in so far as they are drawn to the first ten polynucleotides of Table 1 (pages 12-118), protein, vector, gene, method of making host cell, recombinant host cell, method of producing the protein of SEQ ID NO:61.

Groups 2-209, claims 1-12, 14-16, in so far as they are drawn to the next 208 polynucleotide groups (any four sequences constitute a single group) and encoded proteins listed in Table 1.

Groups 210-418, claim 13, in so far as they are drawn to isolated antibodies that bind to any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 419-627, claims 15-16, in so far as they are drawn to a method of making any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 628-836, claim 17, in so far as they are drawn to a method of treatment by administration any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 837-1045, claim 18, in so far as they are drawn to a method of diagnosing a pathological condition by determining a presence or absence of a mutation in any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 1046-1255, claim 19, in so far as they are drawn to a method of diagnosing a pathological condition by determining the presence or amount of any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 1256-1465, claims 20 and 23, in so far as they are drawn to a method of identifying any one group of the next 208 polypeptide sequence groups listed in Table 1, and the product produce by the same method.

Group 1466-1675, claim 22, in so far as they are drawn to a method of identifying an activity in a biological assay by expression of any one group of the next 208 polypeptide sequence groups listed in Table 1.

The inventions not elected, do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT rule 13.2, the non-elected groups lack the same or corresponding technical features for the following reasons: Group 1 corresponds to the first invention wherein the first product is the polynucleotide, and the first method of use is the method of using the polynucleotide to make the protein, and the protein. Note, there is no method of making the polynucleotide. Each of groups 2-1675 does not share the same or corresponding special technical feature because, each group is drawn to different polynucleotide or encoded protein. Additionally, each of groups 210-1675 does not share the same or corresponding technical feature because, each group is drawn to different compounds or methods of using any of the fifty polynucleotides and encoded proteins listed in Table 1. The Authority therefore considers that the several inventions do not share a special technical feature within the meaning of PCT Rule 13.2 and thus do not relate to a single general inventive concept within the meaning of PCT Rule 13.1.